

# **Rico Surface and Groundwater Sampling Supplemental Surface and Groundwater Quality Monitoring**

## **Rico, Colorado Data Summary Report**

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**Rico, Colorado**  
**Surface and Groundwater Sampling Report**  
**May 2013 Sampling Event**

## **1.0 Introduction**

In accordance with the Rico Sampling and Analysis Plan for Supplemental Surface and Groundwater Quality Monitoring at Rico, CO prepared by AECOM, dated November 2010, the surface and groundwater sampling event was completed on May 15<sup>th</sup> – 23<sup>rd</sup>, 2013. Sampling was completed by Anderson Engineering Co. Inc., by technicians who are familiar with the Rico sites and the BP Control of Work Management System. Surface and groundwater samples were collected from prescribed locations within the St. Louis settling pond system and at the system discharge (DR-6) to the Dolores River (collectively referred to as the St. Louis pond system), and previously sampled locations along the Dolores River above, at and below the St. Louis pond system. Figures 1, 2, and 3 in Appendix A illustrate the locations of the various points sampled monthly. Sample results have been summarized and laboratory analytical results are attached with quality control documentation.

## **2.0 Field Sampling**

### **2.1 Sampling Frequency**

The sampling period represented by this sampling event is for the month of May of 2013. Sampling will be performed on a monthly basis through at least the end of 2013.

### **2.2 Water Quality and Flow Measurement Sampling Locations**

Surface water and groundwater samples were collected from the locations described on Table 1 and shown on Figures 1, 2, and 3 in Appendix A. In the fall of 2011, twelve (12) new monitoring wells were drilled in the vicinity of the recently constructed interim drying facility. Beginning November 2011, those wells were sampled and will continue to be sampled monthly along with the other sampling locations mentioned. In the fall of 2012, eight (8) new monitoring wells were drilled throughout the St. Louis Ponds site. Beginning November 2012, those wells were sampled and will continue to be sampled monthly along with the other sampling locations mentioned. Additionally, eight (8) historic groundwater wells are sampled on a monthly basis.

The Dolores River was sampled above the St. Louis pond system, and below the adit outfalls downstream of the reclaimed Silver Swan Mine area. The river was also sampled at the USGS gaging station downstream of the Silver Swan site.

**TABLE 1 - Sample Location Descriptions**

SITE ID	SITE LOCATION / DESCRIPTION
<b>Surface Water Locations</b>	
DR-1	Cross-section on the Dolores River approximately 1000 feet North of Pond 18.
DR-2	Cross-section on the Dolores River approximately 150 feet North of the system outfall.
DR-3	St. Louis Tunnel discharge at adit entrance. Sampling location is at the parshall flume located approximately 50 ft west of the cinder block structure at the former adit entrance.

DR-4	Discharge of Pond 15. The sampling location is at the outlet of the upper discharge pipe located on the midpoint of the Pond 15 south embankment.
DR-5	Discharge of Pond 8. The sampling location is at the inlet of the discharge spillway located at the southwest corner of Pond 8.
DR-6	St. Louis settling ponds system outfall to the Dolores River (previous permit Outfall 002). Sample location is at installed 9" parshall flume.
DR-7	Dolores River below St. Louis settling ponds system outfall. Sampling/flow measurement location is located just off the entrance road to the St. Louis ponds site where the Dolores River is adjacent to the entrance road. The site is located approximately 75 feet downstream of a large bend in the river that first brings the Dolores adjacent to the entrance road.
DR-4-SW	Dolores River below Silver Swan. Sampling/flow measurement location is on the Dolores River below the Silver Swan site just downstream of a bend in the river and below a cemetery on the east bank.
DR-G	Located approximately 3.5 miles downstream of the Silver Swan site, at the USGS gauging station #09165000 immediately downstream of the bridge at this location.
<b>Groundwater Locations</b>	
GW-1	Well is located on the north end of the site, approximately 1000 feet north of the northern edge of Pond 18 and about 75 feet northeast of DR-1
GW-3	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road.
GW-4	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1.
GW-7	Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. It is within ten feet of GW-5.
EB-2	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 Shallow MW-1 Deep	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-2 Shallow MW-2 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond.
MW-3 Shallow MW-3 Deep	Both wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment.
MW-4 Shallow MW-4 Deep	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.
MW-5 Shallow	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).

MW-5 Deep	
MW-6 Shallow	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road
MW-6 Deep	
MW-101	Well is located approximately 200 feet south of the lime plant building in the large open clearing within the St. Louis Road loop.
MW-102	Well is located approximately 150 feet southeast of well GW-7 at the point that the access road splits in two directions.
MW-103	Well is located at the southwest corner of Pond 7 on the flood control dike adjacent to the Dolores River.
MW-104	Well is located approximately midway along the west flood control dike of Pond 9.
MW-202	Well is located approximately 25 feet southeast of the cinder block structure at the former adit entrance.
MW-204	Well is located approximately 200 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
P13-102	Well is located at approximately the southeast end of the newly constructed dike at the southwest corner of Pond 13.
P13-103	Well is located approximately midway along the newly constructed dike at the south corner of Pond 13.
CHV-101S	Well is located approximately 125 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel. Sampling by bailer.
AT-2	Angle borehole casing is located approximately 220 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
BAH-01	Angle borehole casing which accesses the mine tunnel from the south.

### 2.3 Sampling Station Conditions and Descriptions

The sampling requirements and stations are described in detail below, as well as the conditions at each station for this sampling period. Samples collected were collected per protocols identified in the Sampling and Analysis Plan (SAP). Flow measurements were collected per protocols identified in the SAP.

**DR-1.** Sampling location partially accessible. Grab sample collected from east bank of river. Composite sample could not be obtained due to high, fast flows. Flow measurements were collected by flotation method.

**DR-2.** Sampling location partially accessible. Grab sample collected from east bank of river. Composite sample could not be obtained due to high, fast flows. Flow measurements were collected by flotation method.

**DR-3.** Flow measurement collected monthly by an installed 9" flume and water level measurement devices at the sampling location. Manual measurement collected on 5-15-13 at 11:10 AM.

**DR-4.** Sample location fully accessible. Sample collected from upper drain pipe inlet in Pond 15. Flow in both pipes estimated by measuring depth and pipe velocity

**DR-5.** Sampling location fully accessible. Sample collected at spillway. Flow measurements collected by flowmeter at spillway. Due to the shallow water and

multiple paths, accurate flow measurements could not be determined for this sampling location and period. Flows estimated at spillway to be 50% of total flow.

**DR-6.** Flow measurement by an installed 9" flume and water level measurement devices at the sampling location. Manual measurement collected on 5-22-13 at 3:21 PM.

**DR-7.** Sampling location partially accessible. Grab sample collected from east bank of river. Composite sample could not be obtained due to high, fast flows. Flow measurements were collected by flotation method.

**DR-4-SW.** Sampling location partially accessible. Grab sample collected from east bank of river. Composite sample could not be obtained due to high, fast flows. Flow measurements were collected by flotation method.

**DR-G.** Sampling location partially accessible. Grab sample collected from east bank of river. Due to high, fast flows, flow measurements were collected by flotation method.

**Monitoring Wells.** All monitoring wells were sampled by use of a bailer, and field measurements were taken at the time of sampling, per protocols identified in the SAP. Depth measurements were also taken at this time. For the May 2013 sampling period, MW-2 Shallow, MW-3 Shallow, and MW-202 were dry.

#### **2.4 Simultaneous Operations**

During the month of May 2013, other projects were occurring simultaneously at the St. Louis Ponds site.

- Operation of the pilot scale wetland test was occurring during the sampling period. Detrimental effects from this operation are little to none.

### **3.0 Sampling and Analysis Parameters and Methods**

All samples were collected as grab or composite samples. Samples were collected from well-mixed locations, which are representative of conditions within the flow stream. Groundwater samples are purged according to protocols identified in the SAP. Lab-certified plastic bottles were used to collect sample water for analyses. Clean hands, dirty hands procedures were followed throughout the sampling. For quality control purposes, one duplicate sample was collected for every 10 samples collected and two field blanks were included with the water samples being submitted to the laboratory for analysis. Composite river samples are collected in accordance with the technical standard operating procedure found in Appendix L. For this sampling period, no composite samples could be collected due to unsafe river access conditions resulting from high, fast river flows.

Lab-certified plastic bottles were used to collect all water samples. Sample water was first collected in clean plastic jugs and field parameters were measured at the time of sample collection. Sample water was then placed in the sampling bottles soon thereafter per protocols identified in the SAP. The following sample bottles were used for collection and analysis (all samples collected without filtration unless otherwise indicated):

- One (1) 500mL HDPE bottle, unpreserved, for alkalinity, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), chloride and sulfate analysis
- One (1) 250mL HDPE bottle, unpreserved, for salinity analysis
- One (1) 250mL HDPE bottle, preserved with HNO<sub>3</sub>, for total metals, silica, and water hardness analysis
- One (1) 250mL HDPE bottle, preserved with HNO<sub>3</sub>, for dissolved metals analysis. This sample is filtered in the field through a 0.45µm filter.
- One (1) 250mL HDPE bottle, preserved with HNO<sub>3</sub>, for potentially dissolved metals analysis
- One (1) 250 mL HDPE bottle, preserved with NaOH and Zn Acetate, for sulfide analysis.
- One (1) 250 mL HDPE bottle, preserved with NaOH, for cyanide analysis
- One (1) 250 mL amber glass bottle, preserved with H<sub>2</sub>SO<sub>4</sub>, for Total Organic Carbon (TOC) and nitrate analysis

Field parameters were measured at the time of sample collection. Field measurement data for pH, temperature, electrical conductivity, dissolved oxygen, and Oxydation-Reduction Potential were recorded using a Hanna Instruments HI 9828 Multiparameter Meter and ExTech ExStik EC500 meter (for recording pH, electrical conductivity, and temperature of groundwater well purge water), and results were logged in the field log book. Results of field measurements for all samples collected on site can be found in Tables 3A – 3G in Appendix B. Weather parameters including temperature and precipitation were obtained and documented in the Daily Toolbox Meeting Record.

All sample bottles were labeled to identify sample number, date and time of collection, type of analysis, and appropriate preservative. In addition, sample analysis/chain of custody forms were completed and processed at the time of sample collection. Original chain of custody forms are signed, dated, and placed in the sample container prior to sealing the container for shipment.

Water samples were kept in cooled containers and sent to the analytical laboratory. Samples were submitted to Pace Analytical Laboratories in Lenexa, Kansas for analysis by analytical procedures listed on Table 2. Analysis was performed according to methods specified in 40 CFR, Part 136 or other methods approved by the EPA. Laboratory methods and reporting limits for all parameters are presented in Table 2. Laboratory results and supporting documentation including quality assurance results are contained in the Appendix C and Appendix D of this report. Results are summarized in Tables 4A – 4D in Appendix B of this report.

**TABLE 2 - Analytical Procedures Summary**

PARAMETER	DETECTION LIMIT (MDL)	REPORTING LIMIT (RL)	METHOD
<b>FIELD PARAMETERS</b>			
Dissolved Oxygen (ppm)	+/- 1.5% of reading	+/- 1.5% of reading	SM 4500-OG
Electrical Conductivity (mS/cm)	+/- 1% of reading	+/- 1% of reading	EPA 120.1
Temperature (°C)	+/- 0.15° C	+/- 0.15° C	Standard Method 2550
ORP (Oxidation Reduction Potential, mV)	+/- 1.0 mV	+/- 1.0 mV	Ag/AgCl Probe
pH (Standard pH Units)	+/- 0.02 pH	+/- 0.02 pH	EPA 150.2
<b>NON-METALS</b>			
Alkalinity (mg/L as CaCO <sub>3</sub> )	20 mg/L	20 mg/L	SM 2320B
Chloride (mg/L )	1.0 mg/L	1.0 mg/L	EPA 300.0
Cyanide (μg/L as CN)	0.0021 mg/L	0.005 mg/L	SM 4500-CN-E
Hardness (mg/L as CaCO <sub>3</sub> )	0.036 mg/L	0.071 mg/L	SM 2340B
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> ( mg/L )	0.022 mg/L	0.1 mg/L	EPA 353.2
Salinity (mg/L as dissolved solids)	6 mg/L	6 mg/L	SM 2510B (calculated)
Silica	0.027 mg/L	0.054 mg/L	EPA 200.8
Sulfate (mg/L as SO <sub>4</sub> )	0.15 mg/L	1.0 mg/L	EPA 300.0
Sulfides (mg/L)	0.018 mg/L	0.05 mg/L	4500-S-2 D
Total Dissolved Solids (mg/L as TDS)	5.0 mg/L	5.0 mg/L	SM 2540C
Total Organic Carbon (mg/L)	0.072 mg/L	0.5 mg/L	SM 5310C
Total Suspended Solids (mg/L as TSS)	5.0 mg/L	5.0 mg/L	SM 2540D
<b>TOTAL, DISSOLVED, AND POTENTIALLY DISSOLVED METALS*</b>			
Aluminum (μg/L as Al)	2.00 μg/L, 6.35 μg/L	4 μg/L, 50 μg/L	EPA 200.8, EPA 200.8
Antimony (μg/L as Sb)	0.100 μg/L, 0.03 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Arsenic (μg/L as As)	0.138 μg/L, 0.05 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Barium (μg/L as Ba)	0.150 μg/L, 0.08 μg/L	0.3 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Beryllium (μg/L as Be)	0.092 μg/L, 0.05 μg/L	0.2 μg/L, 0.5 μg/L	EPA 200.8, EPA 200.8
Cadmium (μg/L as Cd)	0.028 μg/L, 0.05 μg/L	0.08 μg/L, 0.5 μg/L	EPA 200.8, EPA 200.8
Calcium (μg/L as Ca)	10.000 μg/L, 10.35 μg/L	20 μg/L, 100 μg/L	EPA 200.8, EPA 200.7
Chromium (ug/l as Cr)	0.094 μg/L, 0.07 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Cobalt (ug/l as Co)	0.250 μg/L, 0.08 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Copper (μg/L as Cu)	0.184 μg/L, 0.12 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Iron (μg/L as Fe)	10.00 μg/L, 2.95 μg/L	50 μg/L, 50 μg/L	EPA 200.8, EPA 200.8
Lead (μg/L as Pb)	0.018 μg/L, 0.03 μg/L	0.1 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Magnesium (μg/L as Mg)	2.31 μg/L, 6.48 μg/L	5 μg/L, 50 μg/L	EPA 200.8, EPA 200.7
Manganese (μg/L as Mn)	0.250 μg/L, 0.14 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Mercury (μg/L as Hg)	0.1 μg/L, 0.053 μg/L	0.2 μg/L, 1 μg/L	EPA 245.1, EPA 245.1
Molybdenum (μg/L as Mo)	0.069 μg/L, 0.12 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Nickel (μg/L as Ni)	0.151 μg/L, 0.07 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Potassium (μg/L as K)	5.24 μg/L, 44.38 μg/L	20 μg/L, 500 μg/L	EPA 200.8, EPA 200.7
Selenium (ug/l as Se)	0.094 μg/L, 0.14 μg/L	0.5 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Silver (ug/L as Ag)	0.040 μg/L, 0.01 μg/L	0.5 μg/L, 0.5 μg/L	EPA 200.8, EPA 200.8
Sodium (μg/L as Na)	10.40 μg/L, 21.68 μg/L	50 μg/L, 500 μg/L	EPA 200.8, EPA 200.7
Thallium (μg/L as Tl)	0.019 μg/L, 0.02 μg/L	0.1 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Vanadium (μg/L as V)	0.037 μg/L, 0.11 μg/L	0.1 μg/L, 1 μg/L	EPA 200.8, EPA 200.8
Zinc (μg/L as Zn)	1.00 μg/L, 1.04 μg/L	5 μg/L, 10 μg/L	EPA 200.8, EPA 200.8

\*Limits and methods for metals displayed in following format: Total and Dissolved Metals, Potentially Dissolved Metals

## **4.0 Flow Measurement Methods**

Flow velocity measurements were taken at the river sampling locations where accessible. Flow measurements were not collected at areas where ice and snow buildup or high, fast flows prohibited safe access. The flow measurements obtained this sampling period are described in Section 2.3. Flow measurements were collected at DR-1, DR-2, DR-3, DR-4, DR-5, DR-6, DR-7, DR-4-SW, and DR-G. Refer to Figures 4 through 9 in Appendix E for Dolores River cross sections. The flowrates are presented on Tables 3A, 3D, 3E, 3F, and 3G in Appendix B.

During high-flow periods, sampling technicians will not be permitted to enter the Dolores River cross-sections where flow velocity exceeds 7.5 feet per second and water depths exceed 3 feet, or where river depth and velocity make it too difficult for a sampling technician to stand. Such conditions generally occur during this sampling period at cross sections DR-1, DR-2, DR-7, DR-4-SW, and DR-G. River velocities were estimated by the flotation method. This method involves measuring off a 20-foot section of ground along the bank parallel to the flow of the river. The river is then divided up into the equal section along the cross section running from the west bank to the east bank. An object is released in the river upstream of the start of the 20-foot measured interval, as close to the center of the subsection as possible. Due to high flows, an object can be carefully tossed from a safe location on the bank of the river, upstream of the start of the 20-foot interval. Once the object reaches the start of the 20-foot interval, a stopwatch is used to record the time required for the object to float on the surface of the river for the 20-foot length. The same procedure is repeated for each subsection. A minimum of three trials for the entire cross section are conducted and recorded in the field log book. An average time is taken of the three trials and divided by 20 feet in order to obtain the average surface velocity in the center of the flow stream. This velocity is then multiplied by a factor of 0.8 (see Appendix M) in order to obtain an average vertical velocity for the stream subsection. Flow is calculated for each subsection by multiplying by this average velocity by an area calculated from previous river bed geometry surveys and current river stage readings.

The St. Louis tunnel flow (DR-3) and St. Louis pond discharge (DR-6) currently have Parshall flumes installed. Flow measurements can be determined at these flumes when the depth of flow is known at a particular point. In order to continuously monitor and measure the depth of flow, depth measurement devices were installed on May 11<sup>th</sup>, 2011 and May 12<sup>th</sup>, 2011 at both the north and south flumes. An STI Ultrasonic IRU-5180 automated water level detector was installed at the north Parshall flume. In order to obtain further flow data, an OTT PLS submersible pressure transducer was installed at the north flume in December 2011. In January 2012, it was decided that the OTT PLS would be used exclusively at the north flume to report flow data, and that the ultrasonic meter would remain only as a backup flow measurement system. This was due in large part to the stability and uniformity observed in the data from the OTT PLS, as opposed to the ultrasonic meter, which exhibited greater instability and variability in the readings than the OTT PLS. The south flume has a submersible pressure transducer called the OTT Orpheus Mini. It records deviations from a pre-programmed depth of air space from the top edge of the flume down to the water level. Knowing then the total depth of the flume, the depth of flow can be determined. The post processed data for the OTT PLS, the STI Ultrasonic IRU-5180, and the OTT Orpheus Mini are given in Appendix I, J, and K, respectively.

During the month of May 2013, technical issues caused power losses periodically throughout the month. Usable data was not recorded for certain hours during the day. Solutions for correcting these issues are being investigated and will be implemented.

## **5.0 Analytical Results**

The results of the laboratory analysis are summarized on Tables 4A – 4D in Appendix B. The data is organized by sample location. The Pace Lab reports for all results are contained in Appendix C.

## **6.0 Quality Control**

In addition to the standard laboratory Quality Control (QC), field QC samples for this sampling event included one field duplicate for every 10 samples collected and a Field Blank (FB).

### **6.1 Field QC**

A field duplicate water sample was obtained for every 10 samples collected. Field duplicate samples are assigned the Sample IDs DR-8, DR-9, DR-10, DR-11, and so forth for as many samples as are collected. During the May 2013 sampling period these duplicate samples were collected at stations DR-3 (DR-8), DR-1 (DR-9), DR-6 (DR-10), DR-2 (DR-11), and DR-4 (DR-12). During sample collection, the duplicate sample bottles were filled simultaneously from the discharge stream or source of water. The duplicate sample was submitted to the analytical laboratory as “blind duplicate” samples.

Tables 5A – 5E in Appendix B compare the analytical results for all parameters from all duplicate sample collected and present the Relative Percent Difference (RPD). The RPD for aqueous samples should be +/- 20%.

Two Field Blanks (FB) were collected by processing and analyzing a bottle of distilled water in the field and in the lab in the same manner as any other sample. The FB-LAB and FB-FIELD were analyzed for the same constituents as the other samples. Both had concentrations below the reporting limit for all metals except for a small number of total, dissolved, and potentially dissolved metals. The pH was slightly above neutral, the Electrical Conductivity (EC) was very low, it showed a non-detectable level of alkalinity, and a non-detectable level of TDS.

### **6.2 Laboratory QC**

The laboratory control sample (LCS), method blank, matrix spike, and matrix spike duplicate sample results were all within the established limits of concentration, percent recovery, and relative percent difference, with several minor exceptions. Please refer to the Laboratory QC Results in Appendix D for exceptions and for a full QC report.

**Appendix A**  
**Sampling Location Maps**



## 1 NORTHERN ST. LOUIS PONDS SAMPLING LOCATIONS

SCALE - 1" = 200'

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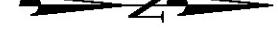
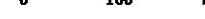
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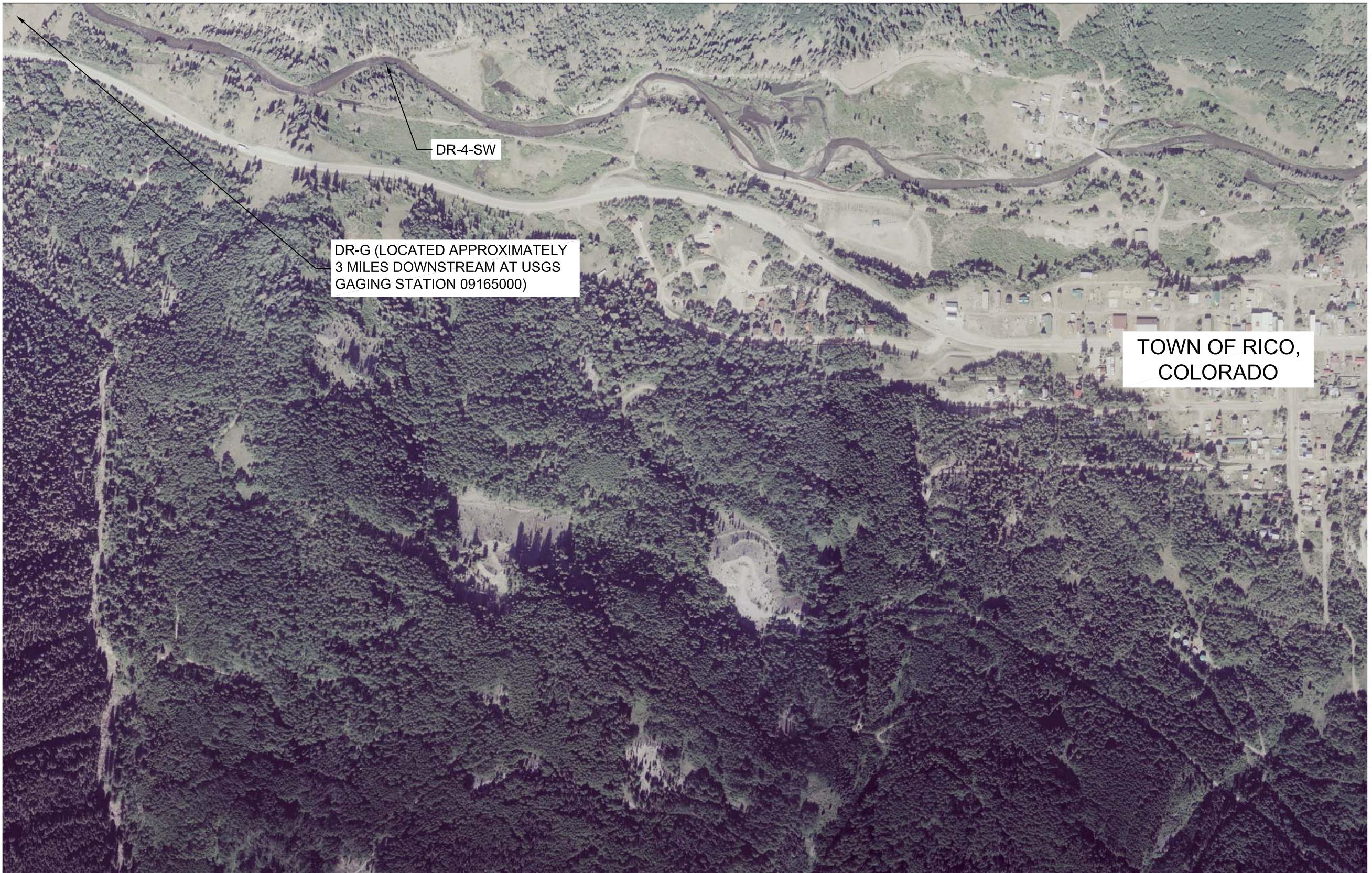


## **SOUTHERN ST. LOUIS PONDS SAMPLING LOCATIONS**

SCALE - 1" = 200'

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General Notes											
 <b>SCALE IN FEET</b> 											
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No.	Revision/Issue	Date									
<span style="font-size: 2em;">BP</span>											
 <b>ANDERSON</b> <small>ENGINEERING COMPANY, INC.</small> <small>877-343-9100   FAX 800-471-1919</small> <small>GAITLAND CITY, UTAH 84024</small> <small>(801) 979-8622</small>											
<b>RICO WATER SAMPLING</b>  <b>SOUTHERN ST. LOUIS PONDS</b> <b>SAMPLING LOCATIONS</b>  <b>RICO,</b> <b>COLORADO</b>											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">DRAWN BY:</td> <td style="width: 33%;">MAD</td> </tr> <tr> <td>ENGINEER:</td> <td>MAD</td> </tr> <tr> <td>APPROVED:</td> <td>MAD</td> </tr> </table>			DRAWN BY:	MAD	ENGINEER:	MAD	APPROVED:	MAD			
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Project	Sheet										
Date											
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Scale	1" = 200'										



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### SAMPLING LOCATIONS SOUTH OF RICO, CO

SCALE - 1" = 500'

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General Notes		
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ANDERSON ENGINEERING COMPANY, INC. 977 WEST 2100 SOUTH SALT LAKE CITY, UTAH 84119 (801) 972-6222		
RICO SURFACE WATER SAMOPLING SAMPLING LOCATIONS SOUTH OF RICO, CO RICO, COLORADO		
DRAWN BY:	MAD	
ENGINEER:	MAD	
APPROVED:	CES	
Project	Sheet	
Date	5-Apr-12	
Scale	1" = 500'	

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## **Appendix B**

### **Data Tables**

TABLE 3A - Surface Water Location Sampling Field Data and Station Information Summary, May 2013

Sample Location	Date of Sample Collection	Field Technicians	Field Measurements						GPS Location (Colorado State Plane NAD83)		Flow Data			Comments		
			pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxidation Reduction Potential (ORP, mV)	Well Casing Elevation (ft)	Well Water Elevation (ft)	Northing	Easting	Stream Cross section area (ft^2)	Flowrate cfs / gpm			
DR-1	5/21/13	T. Barbee, M. Capener	8.86	2.22	0.132	7.95	-118.0	NA	NA	1389970.4600	2267573.6490	86.5	655.48	294180	Cross section on the Dolores River above St. Louis settling pond system (approximately 800 ft north of the northern edge of Pond 18). Flow measurement by flowmeter could not be obtained due to high fast flows, preventing safe access. Flow measurements by flotation method (See section 4.0 of report).	
DR-2	5/23/13	T. Barbee, M. Capener	7.72	3.63	0.129	9.18	-24.4	NA	NA	1386660.9610	2267971.4630	81.06	374.36	168013	Cross section on the Dolores River, approximately 150 ft north of system outfall. Flow measurement by flowmeter could not be obtained due to high fast flows, preventing safe access. Flow measurements by flotation method (See section 4.0 of report).	
DR-3	5/15/13	T. Thacker, M. Capener	7.10	21.52	0.888	8.21	-44.5	NA	NA	1388963.0808	2268004.6974	NA	Ultrasonic	1.28	573.44	St Louis adit discharge. Flow measurement by installed Parshall Flume. Due to winter storm activity in May, equipment at north flume suffered several power failures and data could not be obtained during some portions of the month. Manual measurement collected on 5-15-13 at 11:10 AM.
													Transducer	1.24	555.52	
													Manual	1.27	568.96	
DR-4	5/23/13	T. Barbee, M. Capener	8.25	15.34	1.499	7.05	-17.2	NA	NA	1388153.6284	2267799.1579	NA	1.22	545.40	Pond 15 discharge. Flow measurements by flowmeter at discharge pipes. Lower pipe velocity could not be obtained due to unsafe access conditions.	
DR-5	5/23/13	T. Barbee, M. Capener	7.12	11.90	1.545	6.13	-17.8	NA	NA	1387273.4503	2268024.8524	1.9	1.16	520.61	Pond 8 discharge. Flow measurements by flowmeter at spillway. Due to multiple leaks, flow at spillway is approximately 50% of total discharge from pond 8 to pond 7. Remainder of flow estimated.	
DR-6	5/22/13	T. Barbee, M. Capener	7.24	16.49	1.584	7.79	-24.0	NA	NA	1386431.4984	2267964.5711	NA	Transducer	0.71	318.65	Outfall to Dolores River. Flow measurement by installed Parshall Flume. Water level by OTT Orpheus Mini submersible pressure transducer. Manual flow measurement collected on 5-22-13 at 3:21 PM.
													Manual	0.74	331.93	
DR-7	5/23/13	T. Barbee, M. Capener	8.59	3.53	0.177	9.35	-75.5	NA	NA	1385880.1050	2267983.4510	84.56	463.6	208060	Cross section on the Dolores River, approximately 500 ft below St. Louis settling pond system outfall. Flow measurements by flotation method (See section 4.0 of report).	
DR-4-SW	5/23/13	T. Barbee, M. Capener	6.90	3.92	0.298	8.33	-5.7	NA	NA	1379176.1190	2266285.0850	86.0	545.9	244982	Cross section on the Dolores River approximately 100 below the Silver Swan site. Flow measurements by flotation method (See section 4.0 of report).	
DR-G	5/23/13	T. Barbee, M. Capener	7.68	2.47	0.144	10.10	-52.7	NA	NA	1364029.7850	2258752.9060	74.5	444.3	199409	Cross section on the Dolores River at USGS gauging station #09165000, approximately 3.5 miles downstream of the Silver Swan site. Flow measurements by flotation method (See section 4.0 of report).	

TABLE 3B - Groundwater Well Sampling Field Data and Station Information Summary, May 2013

Sample Location			Field Measurements						GPS Location (Colorado State Plane NAD83)		Flow Data			Comments
	Date of Sample Collection	Field Technicians	pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxidation Reduction Potential (ORP, mV)	Well Casing Elevation (ft)	Well Water Elevation (ft)	Northing	Easting	Stream Cross section area (ft^2)	Flowrate cfs / gpm	
GW-1	5/22/13	T. Barbee, M. Capener	7.45	5.84	0.266	2.39	-120.8	8840.13	8839.62	1390006.0210	2267642.6870	NA	NA	Located on the north end of the site, approximately a quarter mile north of the northern edge of Pond 18.
GW-3	5/21/13 5/22/13	T. Barbee, M. Capener	7.46	9.09	0.804	4.41	33.5	8836.68	8823.95	1389221.9930	2267708.3940	NA	NA	Located approximately 200 feet north of the northern edge of pond 18, and approximately 60 feet west of the main access road. Sample collected over two days.
GW-4	5/22/13	T. Barbee, M. Capener	7.03	4.94	1.063	3.93	-65.8	8826.79	8816.8	1388790.0720	2267553.5420	NA	NA	Located on the western flood dike of Pond 18, approximately midway along the dike.
GW-5	5/21/13	T. Barbee, M. Capener	6.84	9.86	2.842	0.77	-102.9	8839.52	8819.15	1388802.0650	2267911.8020	NA	NA	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1.
GW-6	5/21/13	T. Barbee, M. Capener	6.38	10.11	2.151	0.33	-76.2	8837.45	8816.50	1388589.3950	2267922.5090	NA	NA	Located on the middle of the former Pond 17 area, or on the western edge of the south dike of the newly constructed drying cell 1.
GW-7	5/15/13	T. Barbee, M. Capener	6.52	15.23	0.955	1.20	-53.4	8840.00	8817.69	1388611.4370	2268158.0170	NA	NA	GW-7 Located on the eastern edge of the access road directly across from the former Pond 17, or directly across from the newly constructed drying cell 2.
EB-1	5/22/13	T. Barbee, M. Capener	8.48	10.92	2.126	0.00	-125.8	8839.86	8818.09	1388792.4420	2267916.9080	NA	NA	Located on the northern edge of the former Pond 17 area, or on the northern dike of the newly constructed drying cell 1. Well is within ten feet of GW-5.
EB-2	5/22/13	T. Barbee, M. Capener	7.33	10.67	3.851	0.00	-10.21	8829.84	8813.45	1388306.1480	2267920.2500	NA	NA	Located on the southern portion of the former Pond 16 area, or on the western edge of the south dike of the newly constructed drying cell 3.
MW-1 SHALLOW	5/16/13	T. Thacker, M. Capener	6.85	11.52	1.331	4.34	-30.0	8810.87	8804.49	1387826.7470	2267944.5160	NA	NA	Both wells are located about 4 feet apart on the western embankment of Pond 13 at the division between Pond 11 and Pond 12.
MW-1 DEEP	5/16/13	T. Thacker, M. Capener	6.64	12.74	1.347	2.52	-38.4	8810.85	8802.00	1387829.4070	2267940.5680	NA	NA	
MW-2 SHALLOW	5/22/13	CNM; Not enough water to sample						8810.23	8800.33	1387829.7580	2267759.0810	NA	NA	Both wells are located about 4 feet apart on the western flood embankment of Pond 12, about mid-way along the pond.
MW-2 DEEP	5/22/13	T. Barbee, M. Capener	6.99	9.04	1.413	2.98	-44.9	8810.21	8800.46	1387836.0950	2267756.0910	NA	NA	MW-2 SHALLOW water level was too low to obtain sample.
MW-3 SHALLOW	5/22/13	DRY WELL						8819.57	CNM	1388308.0910	2267603.5420	NA	NA	Both wells are located about 4 feet apart on the western flood embankment of Pond 15, on the southern half of the embankment. MW-3 SHALLOW was dry.
MW-3 DEEP	5/22/13	T. Barbee, M. Capener	6.98	11.43	1.420	8.48	-115.2	8819.72	8810.26	1388313.2060	2267601.6050	NA	NA	
MW-4 SHALLOW	5/16/13	T. Barbee, M. Capener	6.88	15.33	1.323	3.54	-24.0	8816.83	8800.29	1387836.9670	2268221.9370	NA	NA	Both wells are located about 4 feet apart on the southern embankment of Pond 13, approximately 60 west of the main east access road.
MW-4 DEEP	5/16/13	T. Thacker, M. Capener	6.62	17.86	2.405	1.77	-29.5	8816.77	8800.28	1387839.1320	2268224.8950	NA	NA	
MW-5 SHALLOW	5/21/13	T. Barbee, M. Capener	4.53	10.22	3.689	0.27	44.8	8830.95	8815.19	1388369.7050	2267814.3980	NA	NA	Both wells are located about 4 feet apart on the western dike of drying cell 3 (refer to Figure 2).
MW-5 DEEP	5/21/13	T. Barbee, M. Capener	6.46	10.63	2.132	1.33	-90.2	8830.73	8813.82	1388374.5740	2267813.8150	NA	NA	
MW-6 SHALLOW	5/15/13	T. Thacker, M. Capener	7.10	15.99	1.333	0.32	-52.2	8830.58	8807.82	1388166.1000	2268148.1000	NA	NA	Both wells are located about 4 feet apart on northern embankment of Pond 13, approximately 75 feet west of the main east access road.
MW-6 DEEP	5/15/13	T. Thacker, M. Capener	6.88	15.47	1.091	1.31	-49.1	8830.11	8807.44	1388165.5290	2268153.3270	NA	NA	
MW-101	5/15/13	T. Thacker, M. Capener	6.69	15.86	0.991	1.11	-64.4	8845.417	8818.61	1388742.4460	2268096.7400	NA	NA	Located east of Drying Cells 1 / 2 boundary dike, inside the St Louis Access road loop, south of the St. Louis lab bldg.
MW-102	5/15/13	T. Thacker, M. Capener	7.04	17.09	0.772	0.89	-97.7	8841.30	8817.93	1388482.8360	2268230.4920	NA	NA	Located east of Drying Cell 4, in the St Louis Access road at the south end of the road loop.
MW-103	5/22/13	T. Barbee, M. Capener	6.41	8.18	1.686	0.00	-41.2	8797.799	8791.46	1387371.9920	2268003.3380	NA	NA	Located on the western flood embankment of Pond 9, approximately 175 feet south of the north west corner of Pond 9.
MW-104	5/22/13	T. Barbee, M. Capener	7.23	10.33	1.507	0.88	-65.4	8785.60	8782.07	1390006.0210	2267642.6870	NA	NA	Located on the western flood embankment between Ponds 6 and 7.
MW-202	5/22/13	CNM; Not enough water to sample						8859.206	8824.51	1388999.6490	2268195.9780	NA	NA	Located approximately 30 feet south of the remnant portal structure of the St. Louis Adit discharge. MW-202 water level was too low to obtain sample.
MW-204	5/16/13	T. Thacker, M. Capener	7.02	17.79	2.599	1.01	-36.6	8865.95	8850.46	1389122.4820	2268373.7870	NA	NA	Located west of collapsed St. Louis adit base, approximately 30 feet west of AT-2.
P13-102	5/16/13	T. Thacker, M. Capener	6.76	13.22	1.840	1.21	-27.5	8810.643	8800.57	1387785.4540	2268076.6470	NA	NA	Located on Pond 13 dike near southeast corner of pond.
P13-103	5/16/13	T. Thacker, M. Capener	6.59	15.18	1.620	0.86	-43.6	8811.46	8801.10	1387856.4350	2267994.0830	NA	NA	Located on Pond 13 causeway just north of the dike.
AT-2	5/22/13	T. Barbee, M. Capener	7.64	18.79	1.097	0.00	-137.2	8866.206	8859.44	1389125.5680	2268405.5140	NA	NA	Angle borehole casing is located approximately 220 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.
BAH-01	5/21/13	T. Barbee, M. Capener	8.12	18.03	1.040	0.00	-168.0	8912.64	8766.64	1388951.4380	2268365.0940	NA	NA	Located on Pond 13 causeway just north of the dike.
CHV-101S	5/22/13	T. Barbee, M. Capener	6.51	15.99	1.372	2.11	22.8	8858.93	8810.87	1389079.2880	2268257.5150	NA	NA	Angle borehole casing is located approximately 220 feet east of the cinder block structure at the former adit entrance, adjacent to the collapsed tunnel.

TABLE 3C - Quality Control Samples Field Data and Station Information Summary, May 2013

			Field Measurements							GPS Location (Colorado State Plane NAD83)		Flow Data		Comments
Sample Location	Date of Sample Collection	Field Technicians	pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxydation Reduction Potential (ORP, mV)	Well Casing Elevation (ft)	Well Water Elevation (ft)	Northing	Easting	Stream Cross section area (ft^2)	Flowrate cfs / gpm	

Duplicate Samples

DR-8	05/15/13	M. Capener, T. Thacker	7.02	21.27	0.823	3.71	-42.8	NA	NA	NA	NA	NA	NA	Duplicate of DR-3.
DR-9	05/21/13	M. Capener, T. Barbee	8.47	2.37	0.132	7.69	-108.4	NA	NA	NA	NA	NA	NA	Duplicate of DR-1.
DR-10	05/22/13	M. Capener, T. Barbee	7.14	16.54	1.585	7.78	-15.6	NA	NA	NA	NA	NA	NA	Duplicate of DR-6.
DR-11	05/23/13	M. Capener, T. Barbee	7.74	3.58	0.126	9.08	-27.6	NA	NA	NA	NA	NA	NA	Duplicate of DR-2.
DR-12	05/23/13	M. Capener, T. Barbee	7.95	15.36	1.498	7.17	-17.0	NA	NA	NA	NA	NA	NA	Duplicate of DR-4.

Field Blanks

FB-LAB	05/22/13	M. Capener, T. Barbee	7.69	16.49	0.003	6.55	-21.1	NA	NA	NA	NA	NA	NA	Lab blank
FB-FIELD	05/22/13	M. Capener, T. Barbee	7.96	16.24	0.004	4.65	-45.1	NA	NA	NA	NA	NA	NA	Field blank

Table 3D - DR-1 Cross Section Composite Sampling Field Data and Flow Information Summary, May 2013

Sample Location			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments	
	Date of Sample Collection	Field Technicians	pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxydation Reduction Potential (ORP, mV)	Northing	Easting	Compartment Geometry		Average Flowrate			
			Width (ft)	Area (ft <sup>2</sup> )	cfs	gpm									
COULD NOT OBTAIN COMPOSITE SAMPLE DUE TO HIGH FAST FLOW IN RIVER PREVENTING SAFE ACCESS															

Table 3E - DR-2 Cross Section Composite Sampling Field Data and Flow Information Summary, May 2013

Sample Location			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments
			pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxydation Reduction Potential (ORP, mV)			Northing	Easting	Compartment Geometry		
	Date of Sample Collection	Field Technicians	Width (ft)	Area (ft <sup>2</sup> )	cfs	gpm								
COULD NOT OBTAIN COMPOSITE SAMPLE DUE TO HIGH FAST FLOW IN RIVER PREVENTING SAFE ACCESS														

Table 3F - DR-7 Cross Section Composite Sampling Field Data and Flow Information Summary, May 2013

Sample Location			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments	
	Date of Sample Collection	Field Technicians	pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxydation Reduction Potential (ORP, mV)	Northing	Easting	Compartment Geometry		Average Flowrate			
			Width (ft)	Area (ft <sup>2</sup> )	cfs	gpm									
COULD NOT OBTAIN COMPOSITE SAMPLE DUE TO HIGH FAST FLOW IN RIVER PREVENTING SAFE ACCESS															

Table 3G - DR-4-SW Cross Section Composite Sampling Field Data and Flow Information Summary, May 2013

Sample Location			Field Measurements					GPS Location (Colorado State Plane NAD83)		Flow Data				Comments	
	Date of Sample Collection	Field Technicians	pH	Temp (°C)	EC (mS/cm)	Dissolved Oxygen (ppm)	Oxydation Reduction Potential (ORP, mV)	Northing	Easting	Compartment Geometry		Average Flowrate			
			Width (ft)	Area (ft <sup>2</sup> )	cfs	gpm									
COULD NOT OBTAIN COMPOSITE SAMPLE DUE TO HIGH FAST FLOW IN RIVER PREVENTING SAFE ACCESS															

TABLE 4A - Surface Water Analytical Sampling Results Summary, May 2013

		Metals (µg/L)																		Non-Metals (mg/L, unless otherwise indicated)																					
Field Sample ID	Date Collected	Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO <sub>3</sub> )	Alkalinity, Carbonate (CaCO <sub>3</sub> )	Alkalinity, Total as CaCO <sub>3</sub>	Chloride	Cyanide	Hardness (µg/L as CaCO <sub>3</sub> )	Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS
DR-1	5/21/13	Total	294	<0.50	40.2	<0.20	0.26	18600	1.2	<0.50	10.5	438	2.7	291	17.7	<0.20	<0.50	0.64	500	<0.50	<0.50	0.56	24.6	42.1	<20.0	42.1	<1.0	<0.0050	58300	0.11	75.4	<0.014	5680	12.3	<0.050	81.0	6.3	17.0			
		Dissolved	41.3	<0.50	37.9	<0.20	0.07	18600	0.53	<0.50	4.2	420	1.1	211	17.7	<0.20	<0.50	0.51	458	<0.50	<0.50	0.220	<0.10	0.17	11.6	42.1	<20.0	42.1	<1.0	<0.0050	58300	0.11	75.4	<0.014	5680	12.3	<0.050	81.0	6.3	17.0	
		Potentially Dissolved	63.9	0.039J	0.26J	<0.3	<0.50	<0.50	17500	0.53J	0.039J	1.0	116	0.26J	2070	7.8	<0.20	0.04J	0.25J	4620J	<1.0	<0.50	1470	0.067J	0.28J	4.8J	35.7	<20.0	35.7	<1.0	<0.0050	57200	<0.10	72.3	0.057	6580	14.1	<0.050	72.0	5.9	23.0
DR-2	5/23/13	Total	464	<0.50	39.1	<0.20	<0.080	18400	1.3	<0.50	1.9	440	2.7	2730	19.8	<0.20	0.54	1.0	576	<0.50	<0.50	1080	<0.10	0.98	5.7	35.7	<20.0	35.7	<1.0	<0.0050	57200	<0.10	72.3	0.057	6580	14.1	<0.050	72.0	5.9	23.0	
		Dissolved	43.7	<0.50	33.8	<0.20	<0.080	16800	<0.50	<0.50	1.6	79.3	<0.10	2610	9.2	<0.20	<0.50	0.78	466	<0.50	<0.50	1150	<0.10	0.16	<5.0	35.7	<20.0	35.7	<1.0	<0.0050	57200	<0.10	72.3	0.057	6580	14.1	<0.050	72.0	5.9	23.0	
		Potentially Dissolved	116	<1.0	0.27J	33.9	<0.50	17500	0.73J	0.13J	2.0	192	0.50J	2580	17.4	<0.20	0.44J	0.71J	453J	<1.0	<0.50	1310	<1.0	0.28J	6.1J	91.2	<20.0	91.2	<1.0	<0.0050	649000	<0.10	852	0.66	17800	649	<0.050	1050	<1.0	35.0	
DR-3	5/15/13	Total	1200	<0.50	2.2	20.5	1.4	16.5	228000	1.0	2.6	219	13400	26.4	19200	1530	<0.20	19.2	4.2	4520	<0.50	<0.50	12200	<0.10	0.26	3170	91.2	<20.0	91.2	<1.0	<0.0050	649000	<0.10	852	0.66	17800	649	<0.050	1050	<1.0	35.0
		Dissolved	210	<0.50	20.4	<0.40	14.6	224000	0.57	2.6	42.1	2430	4.7	19300	1540	<0.20	15.4	6.4	4510	<0.50	<0.50	12100	<0.10	<0.10	2790	91.2	<20.0	91.2	<1.0	<0.0050	649000	<0.10	852	0.66	17800	649	<0.050	1050	<1.0	35.0	
		Potentially Dissolved	1160	0.42J	1.9	21.9	1.1	15.8	242000	3.3	2.5	206	12900	25.9	19200	1610	<0.20	17.4	4600	<1.0	<0.50	11800	0.33J	0.30J	3140	91.2	<20.0	91.2	<1.0	<0.0050	649000	<0.10	852	0.66	17800	649	<0.050	1050	<1.0	35.0	
DR-4	5/23/13	Total	233	<0.50	0.56	20.1	0.35	11.3	273000	0.96	2.4	40.1	2630	4.6	19500	1590	<0.20	15.8	3.2	4620	<0.50	<0.50	11600	<0.10	0.13	2220	94.2	<20.0	94.2	<1.0	<0.0050	763000	<0.10	839	0.65	17800	634	<0.050	864	<1.0	6.0
		Dissolved	11.4	<0.50	<0.50	20.0	<0.20	9.6	266000	<0.50	2.3	2.4	<50.0	<0.10	19300	1550	<0.20	15.3	4.1	4590	<0.50	<0.50	12100	<0.10	<0.10	1720	94.2	<20.0	94.2	<1.0	<0.0050	763000	<0.10	839	0.65	17800	634	<0.050	864	<1.0	6.0
		Potentially Dissolved	210	0.24J	0.62J	18.6	0.32J	12.0	248000	1.2	2.3	41.6	2800	5.3	19600	1580	<0.20	17.1	3.6	4590	<1.0	<0.50	12600	0.10J	<1.0	2080	94.2	<20.0	94.2	<1.0	<0.0050	763000	<0.10	839	0.65	17800	634	<0.050	864	<1.0	6.0
DR-5	5/23/13	Total	38.4	<0.50	20.7	<0.20	8.8	282000	<0.50	1.9	6.8	950	20900	440	<0.20	14.8	2.4	4850	<0.50	<0.50	12100	<0.10	<0.10	1420	111	<20.0	111	<1.0	<0.0050	789000	<0.10	900	0.70	17700	658	<0.050	868	<1.0	5.0		
		Dissolved	3.0	<0.50	2.40	21.2	<0.20	4.6	282000	0.50	2.0	1.7	<50.0	<0.10	24300	1450	<0.20	15.1	7.3	4850	<0.50	<0.50	12600	<0.10	<0.10	1420	111	<20.0	111	<1.0	<0.0050	789000	<0.10	900	0.70	17700	658	<0.050	868	<1.0	5.0
		Potentially Dissolved	36.8J	0.16J	0.19J	14.4	0.10J	9.6	264000	0.53J	1.9	1.6	595	0.81J	20000	1450	<0.20	15.6	3.4	4900	<0.50	<0.50	13300	0.087J	<1.0	1330	111	<20.0	111	<1.0	<0.0050	789000	<0.10	900	0.70	17700	658	<0.050	868	<1.0	5.0
DR-6	5/22/13	Total	24.2	<0.50	20.9	<0.20	8.3	298000	<0.50	1.4	3.7	452	26000	1280	<0.20	13.5	1.8	5870	<0.50	<0.50	15000	<0.10	<0.10	1190	158	<20.0	158														

TABLE 4B - Groundwater Analytical Sampling Results Summary, May 2013

Field Sample ID	Date Collected	Metals (µg/L)																	Non-Metals (mg/L, unless otherwise indicated)																											
		Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate (CaCO3)	Alkalinity, Carbonate (CaCO3)	Alkalinity, Total as CaCO3	Chloride	Cyanide	Hardness (µg/L as CaCO3)	Nitrogen, NO2 plus NO3	Salinity, as dissolved solids	Salinity, as seawater (PSU)	Silica (µg/L)	Sulfate	Sulfide	TDS	TOC	TSS					
GW-1	5/22/13	Total	12300	0.60	19.6	312	1.1	2.3	47400	12.5	14.3	80.6	22300	65.9	10000	2720	0.80	5.3	24.4	3530	1.6	0.50	2640	0.38	27.1	256	88.9	<20.0	88.9	1.4	<0.0050	160000	<0.10	160	0.12	47000	32.2	<0.050	113	3.0	321					
		Dissolved	<4.0	<0.50	<0.50	46.3	0.10	<0.080	42000	<0.50	1.1	<0.50	4600	1.4	<0.20	1.4	<0.50	615	<0.50	1100	<0.50	2230	<0.10	<0.10	42.0	146																				
GW-3	5/21/13 5/22/13	Potentially Dissolved	3420	0.15J	0.10	250	0.05	2.0	27000	0.50	1.3	46.6	600	1.1	43.7	5680	1.00	<0.20	3.0J	11.0	1.3	1.0	2400	0.00	1.0	146																				
		Total	12000	0.62	20.7	223	0.57	1.7	148000	15.8	8.1	80.4	20800	79	22200	1380	<0.20	3.2	12.0	4570	11.3	0.92	1190	0.25	25.6	426	189	<20.0	189	1.7	<0.0050	460000	<0.10	478	0.36	52000	224	<0.050	547	1.6	220					
GW-4	5/22/2013	Potentially Dissolved	5030	0.32J	9.0	114	0.41J	3.0	127000	9.9	9.1	86.4	11900	14.8	17400	2460	<0.20	0.68	4.8	2490	8.4	<0.50	2780	<0.10	0.44	25.7	189																			
		Total	43200	0.82	32.2	719	2.4	10.1	208000	64.1	24.4	194	93100	188	47900	2010	0.27	23.0	47.7	8510	3.9	2.8	8250	0.71	90.5	1300	122	<20.0	122	1.2	<0.0050	717000	0.19	592	0.45	134000	395	<0.050	604	3.7	2020					
GW-5	5/21/13	Potentially Dissolved	12000	0.18J	9.5	109	1.7	11.1	174000	26.7	14.1	171	42100	194	24400	1640	<0.20	4.6	24.1	4150	2.7	0.74	7320	0.32J	32.0	980																				
		Total	13100	3.5	284	115	1.5	123	605000	22.4	42.5	1740	79400	53700	10400	<0.20	26.0	57.6	8240	3.5	72.8	7360	2.2	21.3	36500	210	<20.0	210	1.3	<0.0050	1730000	0.39	1490	1.2	81700	1690	0.87	846	1.6	271						
GW-6	5/21/13	Potentially Dissolved	27400	4.9	296	216	3.8	92.6	380000	35.0	36.2	1040	145000	9400	61100	11800	0.26	13.4	48.8	14000	7.3	37.6	6960	2.2	55.0	24300																				
		Total	27400	<0.50	17.5	17.5	0.49	0.93	376000	<0.50	2.5	9.5	34900	90.2	45000	6000	<0.20	6.8	50.0	9140	<0.50	<0.50	6800	<0.10	0.42	9820	190	<20.0	190	1.3	<0.0050	1200000	0.16	1170	0.92	112000	986	<0.050	1250	2.8	446					
GW-7	5/15/13	Potentially Dissolved	31800	1.4	40.2	17.8	3.5	19.3	279000	4.0	21.8	18100	1830	53000	1480	0.28	11.4	42.0	6050	3.2	7.4	8400	0.83	31.4	3000																					
		Total	616	<0.50	<0.50	13.8	10.6	26000	<0.50	10.5	10.4	3870	7.9	36100	996	<0.20	0.97	13.3	2470	1.8	<0.50	8170	0.12	<0.10	1060	182	<20.0	182	1.1	<0.0050	916000	0.60	956	0.75	74000	757	<0.050	975	2.1	1070						
EB-1	5/22/13	Potentially Dissolved	16500	0.26J	4.8	23.6	2.7	13.7	271000	15.2	14.8	410	33000	150	35000	11100	<0.20	1.0	25.2	3200	6.9	1.3	8010	0.60	4.1	1850																				
		Total	1280	<0.50	13.3	27.7	0.45	3.9	474000	1.9	5.9	70.3	11500	237	3000	3890	<0.20	15.2	5.3	5300	<0.50	0.82	7320	<0.10	1.9	2130																				
EB-2	5/22/13	Potentially Dissolved	66.1	<0.50	7.3	14.6	0.20	0.44	452000	<0.50	5.2	4.1	4170	12.5	29400	3760	<0.20	15.1	5.5	5250	<0.50	0.50	7720	<0.10	<0.10	1310	165	<20.0	165	<1.0	<0.0050	1310000	<0.10	1310	1.0	28100	1060	<0.050	1540	1.5	67.0					
		Total	24400	0.59	407	22.5	8.9	7.1	377000	<0.50	78.6	97.1	807000	1040	187000	40400	<0.20	4.8	112	21500	2.5	2.8	7120	0.18	1.8	86900																				
MW-1 SHALLOW	5/16/13	Potentially Dissolved	20700	0.33J	473	13.8	8.1	5.4	294000	1.6	90.1	73.9	739000	827	168000	39700	<0.20	3.7	136	18600	3.7	0.43J	7250	0.16J	0.55J	81700																				
		Total	8330	0.52	10.7	146	0.55	1.1	229000	14.6	5.2	43.3	13500	119	24600	539	<0.20	11.1	9.5	8690	12.2	1.3	12400	0.35	13.5	189																				

TABLE 4C - Quality Control Samples Analytical Sampling Results Summary, May 2013

Field Sample ID	Date Collected	Metals ( $\mu\text{g/L}$ )																		Non-Metals (mg/L, unless otherwise indicated)																						
		Fraction	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate ( $\text{CaCO}_3$ )	Alkalinity, Carbonate ( $\text{CaCO}_3$ )	Alkalinity, Total as $\text{CaCO}_3$	Chloride	Cyanide	Hardness ( $\mu\text{g/L}$ as $\text{CaCO}_3$ )	Nitrogen, $\text{NO}_2$ plus $\text{NO}_3$	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica ( $\mu\text{g/L}$ )	Sulfate	Sulfide	TDS	TOC	TSS	
DR-8 DUPLICATE OF DR-3	5/15/13	Total	976	<0.50	<0.50	1.9	20.7	1.2	16.3	231000	0.90	2.6	182	11300	22.3	19400	1550	<0.20	18.5	4.0	4530	<0.50	<0.50	12300	<0.10	0.21	3110	91.1	<20.0	91.1	<1.0	<0.0050	656000	<0.10	840	0.65	17900	671	<0.050	784	<1.0	38.0
		Dissolved	140	<0.50	<0.50	19.9	2.0	1.0	1.0	226000	<0.50	2.6	5.5	183	<0.10	19100	1550	<0.20	14.8	7.4	4470	<0.50	<0.50	12300	<0.10	0.21	2720															
		Potentially Dissolved	1210	0.41J	1.2	2.0	1.1	1.6	231000	5.1	2.4	216	13500	26.3	18300	1600	<0.20	17.1	5.6	4540	<1.0	<0.50	11600	0.32J	<1.0	3130																
DR-9 DUPLICATE OF DR-1	5/21/13	Total	255	<0.50	<0.50	35.9	<0.20	<0.080	17600	0.96	<0.50	4.3	275	2789	10.4	<0.20	0.51	0.53	458	<0.50	<0.50	1120	<0.10	0.61	7.3		40.0	<20.0	40.0	<1.0	<0.0050	55400	<0.10	75.1	0.059	5260	12.3	<0.050	65.0	5.7	13.0	
		Dissolved	64.5	<0.50	<0.50	38.5	<0.20	0.34	19200	1.3	<0.50	11.8	423	3.3	2820	14.8	<0.20	0.62	0.71	454	<0.50	<0.50	1210	<0.10	0.18	31.2																
		Potentially Dissolved	98.7	0.035J	0.29J	40.4	<0.50	<0.50	17600	0.78J	0.11J	1.7	143	0.34J	2690	9.0	<0.20	0.38J	0.45J	448J	<1.0	<0.50	1410	<1.0	0.45J	3.5J																
DR-10 DUPLICATE OF DR-6	5/22/13	Total	15.3	<0.50	<0.50	21.0	<0.20	8.3	301000	<0.50	1.5	3.6	456	0.45	26400	1280	<0.20	13.6	2.1	5960	<0.50	<0.50	15300	<0.10	<0.10	1220		157	<20.0	157	<1.0	<0.0050	861000	<0.10	877	0.68	21500	674	<0.050	1110	<1.0	8.0
		Dissolved	<4.0	<0.50	<0.50	21.9	<0.20	8.2	304000	0.74	1.5	1.7	52.6	<0.10	26800	1330	<0.20	14.0	3.3	6130	<0.50	<0.50	16200	<0.10	<0.10	1150																
		Potentially Dissolved	25.7J	0.15J	0.20J	22.0	0.076J	8.5	262000	1.1	1.3	3.8	678	1.7	23300	1240	<0.20	13.8	3.8	5730	<1.0	<0.50	15600	0.058J	<1.0	1080																
DR-11 DUPLICATE OF DR-2	5/23/13	Total	408	<0.50	<0.50	33.7	<0.20	<0.080	17700	<0.50	<0.50	2.1	<50.0	<0.10	2580	10.4	<0.20	<0.50	3.4	452	<0.50	<0.50	1110	<0.10	0.16	6.7		39.1	<20.0	39.1	<1.0	<0.0050	50800	0.53	74.6	0.059	5680	14.3	<0.050	78.0	6.0	18.0
		Dissolved	42.7	<0.50	<0.50	33.7	<0.20	<0.080	17700	<0.50	<0.50	2.1	<50.0	<0.10	2580	10.4	<0.20	<0.50	3.4	452	<0.50	<0.50	1110	<0.10	0.16	6.7																
		Potentially Dissolved	119	0.048J	0.30J	35.0	<0.50	<0.50	16800	1.3	0.13J	1.6	186	0.42J	2600	17.3	<0.20	0.38J	0.57J	419J	<1.0	<0.50	1210	<1.0	0.32J	5.8J																
DR-12 DUPLICATE OF DR-4	5/23/13	Total	214	<0.50	<0.50	20.2	0.26	11.4	232000	<0.50	2.3	35.8	2580	4.7	19900	1530	<0.20	15.8	3.7	4500	<0.50	<0.50	12500	<0.10	<0.10	2090		97.8	<20.0	97.8	<1.0	<0.0050	662000	<0.10	861	0.67	15800	635	<0.050	892	<1.0	5.0
		Dissolved	12.7	<0.50	<0.50	19.5	0.20	4.4	261000	0.50	2.5	2.1	<50.0	<0.10	19200	1550	<0.20	15.3	5.5	4440	<0.50	<0.50	11500	<0.10	<0.10	1720																
		Potentially Dissolved	21.0	0.20J	0.33J	19.2	0.25J	11.7	249000	0.83J	2.2	2.0	2530	5.9	18000	1530	<0.20	16.3	3.6	4580	<1.0	<0.50	12300	0.062J	<1.0	1980																
FB-LAB	5/22/13	Total	7.3	<0.50	<0.50	0.34	<0.20	<0.080	112	<0.50	<0.50	<50.0	<0.10	17.5	0.65	<0.20	<0.50	<30.0	472	<0.10	<0.10	<5.0																				
		Dissolved	<4.0	<0.50	<0.50	0.30	<0.20	<0.080	68.8	0.54	<0.50	1.2	<50.0	<0.10	14.9	0.49	<0.20	<0.50	37.8	508	<0.10	<0.10	<5.0																			
		Potentially Dissolved	<50.0	<1.0	<1.0	0.40J	<0.50	<0.50	38.4J	0.86J	<1.0	0.91J	30.1J	0.083J	<50.0	0.42J	<0.20	<1.0	0.49J	<500	<1.0	<0.50	610	<1.0	<1.0	2.8J		<20.0	<20.0	<20.0	<1.0	<0										

TABLE 4D - Dolores River Composite Sampling Analytical Sampling Results Summary, May 2013

Field Sample ID	Date Collected	Fraction	Metals ( $\mu\text{g/L}$ )																		Non-Metals (mg/L, unless otherwise indicated)																	
			Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Alkalinity, Bicarbonate ( $\text{CaCO}_3$ )	Alkalinity, Carbonate ( $\text{CaCO}_3$ )	Alkalinity, Total as $\text{CaCO}_3$	Chloride	Cyanide	Hardness ( $\mu\text{g/L}$ as $\text{CaCO}_3$ )	Nitrogen, $\text{NO}_2 + \text{NO}_3$	Salinity, as dissolved solids	Salinity, as sea water (PSU)	Silica ( $\mu\text{g/L}$ )	Sulfate	Sulfide
DR-1 COMP	5/21/13	Total	DUE TO HIGH, FAST FLOWS PREVENTING SAFE ACCESS, COMPOSITE SAMPLE COULD NOT BE COLLECTED.																																			
DR-2 COMP	5/23/13	Total	DUE TO HIGH, FAST FLOWS PREVENTING SAFE ACCESS, COMPOSITE SAMPLE COULD NOT BE COLLECTED.																																			
DR-7 COMP	5/23/13	Total	DUE TO HIGH, FAST FLOWS PREVENTING SAFE ACCESS, COMPOSITE SAMPLE COULD NOT BE COLLECTED.																																			
DR-4-SW COMP	5/23/13	Total	DUE TO HIGH, FAST FLOWS PREVENTING SAFE ACCESS, COMPOSITE SAMPLE COULD NOT BE COLLECTED.																																			



**Table 5A - Relative Percent Difference (RPD) of Lab Analysis Between DR-3 and DR-8**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-3 (µg/L)	DR-8 (µg/L)	RPD (%)	DR-3 (µg/L)	DR-8 (µg/L)	RPD (%)	DR-3 (µg/L)	DR-8 (µg/L)	RPD (%)
Aluminum	1200	976	-20.59	210	12.0	-178.38	1160	1210	4.22
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.42J	0.41J	-
Arsenic	2.2	1.9	-14.63	<0.50	<0.50	-	1.9	2.0	5.13
Barium	20.5	20.7	0.97	20.4	19.9	-2.48	21.9	22.0	0.46
Beryllium	1.4	1.2	-15.38	<0.40	<0.40	-	1.1	1.1	0.00
Cadmium	16.5	16.3	-1.22	14.6	14.0	-4.20	15.8	15.8	0.00
Calcium	228000	231000	1.31	224000	226000	0.89	242000	234000	-3.36
Chromium	1.0	0.90	-10.53	0.57	<0.50	-	3.3	5.4	48.28
Cobalt	2.6	2.6	0.00	2.6	2.6	0.00	2.5	2.4	-4.08
Copper	219	182	-18.45	42.1	5.5	-153.78	206	216	4.74
Iron	13400	11300	-17.00	2430	183	-171.99	12900	13500	4.55
Lead	26.4	22.3	-16.84	4.7	<0.10	-	25.9	26.9	3.79
Magnesium	19200	19400	1.04	19300	19100	-1.04	19200	18900	-1.57
Manganese	1530	1550	1.30	1540	1550	0.65	1610	1600	-0.62
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	19.2	18.5	-3.71	15.4	14.8	-3.97	17.4	17.1	-1.74
Nickel	4.2	4.0	-4.88	6.4	7.4	14.49	5.1	5.6	9.35
Potassium	4520	4530	0.22	4510	4470	-0.89	4600	4540	-1.31
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
Sodium	12200	12300	0.82	12100	12000	-0.83	11800	11800	0.00
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.33J	0.32J	-
Vanadium	0.26	0.21	-21.28	<0.10	<0.10	-	0.30J	<1.0	-
Zinc	3170	3110	-1.91	2790	2720	-2.54	3140	3130	-0.32
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	91.2	91.1	-0.11						
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-						
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	91.2	91.1	-0.11						
Chloride (mg/L)	<1.0	<1.0	-						
Cyanide	<0.0050	<0.0050	-						
Hardness	649000	656000	1.07						
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	<0.10	<0.10	-						
Salinity, as dissolved solids (mg/L)	852	840	-1.42						
Salinity, as sea water (PSU)	0.66	0.65	-1.53						
Silica	17800	17900	0.56						
Sulfate (mg/L)	649	671	3.33						
Sulfide (mg/L)	<0.050	<0.050	-						
TDS (mg/L)	1050	784	-29.01						
TOC (mg/L)	<1.0	<1.0	-						
TSS (mg/L)	35.0	38.0	8.22						

**Table 5B - Relative Percent Difference (RPD) of Lab Analysis Between DR-1 and DR-9**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-1 (µg/L)	DR-9 (µg/L)	RPD (%)	DR-1 (µg/L)	DR-9 (µg/L)	RPD (%)	DR-1 (µg/L)	DR-9 (µg/L)	RPD (%)
Aluminum	294	255	-14.21	41.3	64.5	43.86	88.9	98.7	10.45
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.039J	0.035J	-
Arsenic	<0.50	<0.50	-	<0.50	<0.50	-	0.26J	0.29J	-
Barium	40.2	38.9	-3.29	37.9	38.5	1.57	40.3	40.4	0.25
Beryllium	<0.20	<0.20	-	<0.20	<0.20	-	<0.50	<0.50	-
Cadmium	0.26	<0.080	-	0.087	0.34	118.50	<0.50	<0.50	-
Calcium	18600	17600	-5.52	19000	19200	1.05	17500	17600	0.57
Chromium	1.2	0.96	-22.22	0.63	1.3	69.43	0.53J	0.78J	-
Cobalt	<0.50	<0.50	-	<0.50	<0.50	-	0.096J	0.11J	-
Copper	10.5	4.3	-83.78	4.2	11.8	95.00	1.3	1.7	26.67
Iron	438	275	-45.72	120	423	111.60	119	143	18.32
Lead	2.7	0.77	-111.24	0.81	3.3	121.17	0.26J	0.34J	-
Magnesium	2910	2780	-4.57	2900	2920	0.69	2670	2690	0.75
Manganese	17.7	10.4	-51.96	7.9	14.8	60.79	7.9	9.0	13.02
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	<0.50	0.51	-	0.51	0.62	19.47	0.64J	0.38J	-
Nickel	0.64	0.53	-18.80	3.2	0.71	-127.37	0.55J	0.45J	-
Potassium	500	488	-2.43	458	454	-0.88	462J	448J	-
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
Sodium	1180	1120	-5.22	1230	1210	-1.64	1470	1410	-4.17
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.067J	<1.0	-
Vanadium	0.56	0.61	8.55	0.17	0.18	5.71	0.28J	0.45J	-
Zinc	24.6	7.3	-108.46	11.1	31.2	95.04	4.8J	3.5J	-
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	42.1	40.0	-5.12						
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-						
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	42.1	40.0	-5.12						
Chloride (mg/L)	<1.0	<1.0	-						
Cyanide	<0.0050	<0.0050	-						
Hardness	58300	55400	-5.10						
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	0.11	<0.10	-						
Salinity, as dissolved solids (mg/L)	75.4	75.1	-0.40						
Salinity, as sea water (PSU)	<0.014	0.059	-						
Silica	5680	5260	-7.68						
Sulfate (mg/L)	12.3	12.3	0.00						
Sulfide (mg/L)	<0.050	<0.050	-						
TDS (mg/L)	81.0	65.0	-21.92						
TOC (mg/L)	6.3	5.7	-10.00						
TSS (mg/L)	17.0	13.0	-26.67						

**Table 5C - Relative Percent Difference (RPD) of Lab Analysis Between DR-6 and DR-10**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-6 (µg/L)	DR-10 (µg/L)	RPD (%)	DR-6 (µg/L)	DR-10 (µg/L)	RPD (%)	DR-6 (µg/L)	DR-10 (µg/L)	RPD (%)
Aluminum	24.2	15.3	-45.06	5.9	<4.0	-	20.5J	25.7J	-
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.15J	0.15J	-
Arsenic	<0.50	<0.50	-	<0.50	<0.50	-	0.17J	0.20J	-
Barium	20.9	21.0	0.48	21.4	21.9	2.31	23.5	22.0	-6.59
Beryllium	<0.20	<0.20	-	<0.20	<0.20	-	0.070J	0.076J	-
Cadmium	8.3	8.3	0.00	8.1	8.2	1.23	8.7	8.5	-2.33
Calcium	298000	301000	1.00	304000	304000	0.00	278000	262000	-5.93
Chromium	<0.50	<0.50	-	<0.50	0.74	-	0.96J	1.1	-
Cobalt	1.4	1.5	6.90	1.6	1.5	-6.45	1.4	1.3	-7.41
Copper	3.7	3.6	-2.74	2.0	1.7	-16.22	3.7	3.8	2.67
Iron	462	456	-1.31	84.2	52.6	-46.20	613	678	10.07
Lead	0.48	0.45	-6.45	0.11	<0.10	-	1.3	1.7	26.67
Magnesium	26000	26400	1.53	26700	26800	0.37	23900	23300	-2.54
Manganese	1280	1280	0.00	1320	1330	0.75	1280	1240	-3.17
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	13.5	13.6	0.74	13.9	14.0	0.72	13.9	13.8	-0.72
Nickel	1.8	2.1	15.38	5.5	3.3	-50.00	2.8	3.8	30.30
Potassium	5870	5960	1.52	6030	6130	1.64	6000	5730	-4.60
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
Sodium	15000	15300	1.98	16000	16200	1.24	16200	15600	-3.77
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.057J	0.058J	-
Vanadium	<0.10	<0.10	-	<0.10	<0.10	-	<1.0	<1.0	-
Zinc	1190	1220	2.49	1190	1150	-3.42	1110	1080	-2.74
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	158	157	-0.63						
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-						
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	158	157	-0.63						
Chloride (mg/L)	<1.0	<1.0	-						
Cyanide	<0.0050	<0.0050	-						
Hardness	851000	861000	1.17						
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	<0.10	<0.10	-						
Salinity, as dissolved solids (mg/L)	874	877	0.34						
Salinity, as sea water (PSU)	0.68	0.68	0.00						
Silica	21200	21500	1.41						
Sulfate (mg/L)	689	674	-2.20						
Sulfide (mg/L)	<0.050	<0.050	-						
TDS (mg/L)	1120	1110	-0.90						
TOC (mg/L)	<1.0	<1.0	-						
TSS (mg/L)	8.0	8.0	0.00						

**Table 5D - Relative Percent Difference (RPD) of Lab Analysis Between DR-2 and DR-11**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-2 (µg/L)	DR-11 (µg/L)	RPD (%)	DR-2 (µg/L)	DR-11 (µg/L)	RPD (%)	DR-2 (µg/L)	DR-11 (µg/L)	RPD (%)
Aluminum	464	408	-12.84	43.7	42.7	-2.31	116	119	2.55
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	0.048J	-
Arsenic	<0.50	<0.50	-	<0.50	<0.50	-	0.27J	0.30J	-
Barium	39.1	37.7	-3.65	33.8	33.7	-0.30	33.9	35.0	3.19
Beryllium	<0.20	<0.20	-	<0.20	<0.20	-	<0.50	<0.50	-
Cadmium	<0.080	<0.080	-	<0.080	<0.080	-	<0.50	<0.50	-
Calcium	18400	15900	-14.58	16800	17700	5.22	17500	16800	-4.08
Chromium	1.3	0.91	-35.29	<0.50	<0.50	-	0.73J	1.3	-
Cobalt	<0.50	<0.50	-	<0.50	<0.50	-	0.13J	0.13J	-
Copper	1.9	2.0	5.13	1.6	2.1	27.03	2.0	1.6	-22.22
Iron	440	419	-4.89	79.3	<50.0	-	192	186	-3.17
Lead	0.57	0.56	-1.77	<0.10	<0.10	-	0.50J	0.42J	-
Magnesium	2730	2710	-0.74	2610	2580	-1.16	2580	2600	0.77
Manganese	19.8	20.7	4.44	9.2	10.4	12.24	17.4	17.3	-0.58
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	0.54	0.51	-5.71	<0.50	<0.50	-	0.44J	0.38J	-
Nickel	1.0	0.83	-18.58	0.78	3.4	125.36	0.71J	0.57J	-
Potassium	576	535	-7.38	466	452	-3.05	453J	419J	-
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
Sodium	1080	1020	-5.71	1150	1110	-3.54	1310	1210	-7.94
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	<1.0	<1.0	-
Vanadium	0.98	0.95	-3.11	0.16	0.16	0.00	0.28J	0.32J	-
Zinc	5.7	5.4	-5.41	<5.0	6.7	-	6.1J	5.8J	-
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	35.7	39.1	9.09						
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-						
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	35.7	39.1	9.09						
Chloride (mg/L)	<1.0	<1.0	-						
Cyanide	<0.0050	<0.0050	-						
Hardness	57200	50800	-11.85						
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	<0.10	0.53	-						
Salinity, as dissolved solids (mg/L)	72.3	74.6	3.13						
Salinity, as sea water (PSU)	0.057	0.059	3.45						
Silica	6580	5680	-14.68						
Sulfate (mg/L)	14.1	14.3	1.41						
Sulfide (mg/L)	<0.050	<0.050	-						
TDS (mg/L)	72.0	78.0	8.00						
TOC (mg/L)	5.9	6.0	1.68						
TSS (mg/L)	23.0	18.0	-24.39						

**Table 5E - Relative Percent Difference (RPD) of Lab Analysis Between DR-4 and DR-12**

Analyte	Total Metals / Non Metals			Dissolved Metals			Potentially Dissolved Metals		
	DR-4 (µg/L)	DR-12 (µg/L)	RPD (%)	DR-4 (µg/L)	DR-12 (µg/L)	RPD (%)	DR-4 (µg/L)	DR-12 (µg/L)	RPD (%)
Aluminum	233	214	-8.50	11.4	12.7	10.79	210	210	0.00
Antimony	<0.50	<0.50	-	<0.50	<0.50	-	0.24J	0.20J	-
Arsenic	0.56	<0.50	-	<0.50	<0.50	-	0.62J	0.39J	-
Barium	20.1	20.2	0.50	20.0	19.5	-2.53	18.6	19.2	3.17
Beryllium	0.35	0.26	-29.51	<0.20	<0.20	-	0.32J	0.25J	-
Cadmium	11.3	11.4	0.88	9.6	9.4	-2.11	12.0	11.7	-2.53
Calcium	273000	232000	-16.24	266000	264000	-0.75	248000	249000	0.40
Chromium	0.96	<0.50	-	<0.50	<0.50	-	1.2	0.86J	-
Cobalt	2.4	2.3	-4.26	2.3	2.5	8.33	2.3	2.2	-4.44
Copper	40.1	35.8	-11.33	2.4	2.1	-13.33	41.6	36.0	-14.43
Iron	2630	2580	-1.92	<50.0	<50.0	-	2800	2530	-10.13
Lead	4.6	4.7	2.15	<0.10	<0.10	-	5.3	5.0	-5.83
Magnesium	19500	19900	2.03	19300	19200	-0.52	19600	19600	0.00
Manganese	1590	1530	-3.85	1550	1560	0.64	1580	1530	-3.22
Mercury	<0.20	<0.20	-	<0.20	<0.20	-	<0.20	<0.20	-
Molybdenum	15.8	15.8	0.00	15.3	15.3	0.00	17.1	16.3	-4.79
Nickel	3.2	3.7	14.49	4.1	5.5	29.17	3.6	3.6	0.00
Potassium	4620	4500	-2.63	4590	4440	-3.32	4590	4580	-0.22
Selenium	<0.50	<0.50	-	<0.50	<0.50	-	<1.0	<1.0	-
Silver	<0.50	<0.50	-	<0.50	<0.50	-	<0.50	<0.50	-
Sodium	11600	12500	7.47	12100	11500	-5.08	12600	12600	0.00
Thallium	<0.10	<0.10	-	<0.10	<0.10	-	0.10J	0.062J	-
Vanadium	0.13	<0.10	-	<0.10	<0.10	-	<1.0	<1.0	-
Zinc	2220	2090	-6.03	1720	1720	0.00	2080	1980	-4.93
Alkalinity, Bicarbonate (CaCO <sub>3</sub> , mg/L)	94.2	97.8	3.75						
Alkalinity, Carbonate (CaCO <sub>3</sub> , mg/L)	<20.0	<20.0	-						
Alkalinity, Total as CaCO <sub>3</sub> (mg/L)	94.2	97.8	3.75						
Chloride (mg/L)	<1.0	<1.0	-						
Cyanide	<0.0050	<0.0050	-						
Hardness	763000	662000	-14.18						
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub> (mg/L)	<0.10	<0.10	-						
Salinity, as dissolved solids (mg/L)	839	861	2.59						
Salinity, as sea water (PSU)	0.65	0.67	3.03						
Silica	17800	15800	-11.90						
Sulfate (mg/L)	634	635	0.16						
Sulfide (mg/L)	<0.050	<0.050	-						
TDS (mg/L)	864	892	3.19						
TOC (mg/L)	<1.0	<1.0	-						
TSS (mg/L)	6.0	5.0	-18.18						

**Appendix C**

**Project Narrative and Laboratory Analytical Reports**

June 14, 2013

Mark DeFriez  
Anderson Engineering Company I  
977 W 2100 S.  
Salt Lake City, UT 84119

RE: Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Dear Mark DeFriez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 18, 2013. The results relate only to the within this report conform to the most current version of the TNI standards, BP LaMP Technical Requirements Revision 10.1, and any applicable Quality Assurance Project Plan (QAPP), or Work Plan unless otherwise narrated in the body of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather Wilson

heather.wilson@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MAY 2013 RICO WATER SAMPLING  
 Pace Project No.: 60144985

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### Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
 A2LA Certification #: 2926.01  
 Alaska Certification #: UST-078  
 Alaska Certification #MN00064  
 Arizona Certification #: AZ-0014  
 Arkansas Certification #: 88-0680  
 California Certification #: 01155CA  
 Colorado Certification #Pace  
 Connecticut Certification #: PH-0256  
 EPA Region 8 Certification #: Pace  
 Florida/NELAP Certification #: E87605  
 Georgia Certification #: 959  
 Hawaii Certification #Pace  
 Idaho Certification #: MN00064  
 Illinois Certification #: 200011  
 Kansas Certification #: E-10167  
 Louisiana Certification #: 03086  
 Louisiana Certification #: LA080009  
 Maine Certification #: 2007029  
 Maryland Certification #: 322  
 Michigan DEQ Certification #: 9909  
 Minnesota Certification #: 027-053-137  
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Montana Certification #: MT CERT0092  
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 Nevada Certification #: MN\_00064  
 New Jersey Certification #: MN-002  
 New York Certification #: 11647  
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 North Dakota Certification #: R-036A  
 Ohio VAP Certification #: CL101  
 Oklahoma Certification #: 9507  
 Oregon Certification #: MN200001  
 Oregon Certification #: MN300001  
 Pennsylvania Certification #: 68-00563  
 Puerto Rico Certification  
 Tennessee Certification #: 02818  
 Texas Certification #: T104704192  
 Utah Certification #: MN00064  
 Virginia/DCLS Certification #: 002521  
 Virginia/VELAP Certification #: 460163  
 Washington Certification #: C754  
 West Virginia Certification #: 382  
 Wisconsin Certification #: 999407970

### Montana Certification IDs

602 South 25th Street, Billings, MT 59101  
 EPA Region 8 Certification #: 8TMS-Q  
 Idaho Certification #: MT00012  
 Montana Certification #: MT CERT0040

NVLAP Certification #: 101292-0  
 Minnesota Dept of Health Certification #: 030-999-442  
 Washington Department of Ecology #: C993

### Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219  
 A2LA Certification #: 2456.01  
 Arkansas Certification #: 13-012-0  
 Illinois Certification #: 003097  
 Iowa Certification #: 118  
 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
 Nevada Certification #: KS000212008A  
 Oklahoma Certification #: 9205/9935  
 Texas Certification #: T104704407-13-4  
 Utah Certification #: KS000212013-3  
 Illinois Certification #: 003097

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60144985001	MW-4 SHALLOW_20130516	Water	05/16/13 15:35	05/18/13 08:45
60144985002	P13-102_20130516	Water	05/16/13 15:45	05/18/13 08:45
60144985003	MW-4 DEEP_20130516	Water	05/16/13 15:30	05/18/13 08:45
60144985004	P13-103_20130516	Water	05/16/13 15:55	05/18/13 08:45
60144985005	MW-1 DEEP_20130516	Water	05/16/13 16:05	05/18/13 08:45
60144985006	MW-1 SHALLOW_20130516	Water	05/16/13 16:10	05/18/13 08:45
60144985007	MW-204_20130516	Water	05/16/13 12:30	05/18/13 08:45
60144985008	MW-102_20130515	Water	05/15/13 16:40	05/18/13 08:45
60144985009	MW-101_20130515	Water	05/15/13 16:40	05/18/13 08:45
60144985010	GW-7_20130515	Water	05/15/13 16:50	05/18/13 08:45
60144985011	MW-6 DEEP_20130515	Water	05/15/13 14:30	05/18/13 08:45
60144985012	MW-6 SHALLOW_20130515	Water	05/15/13 14:50	05/18/13 08:45
60144985013	DR-8_20130515	Water	05/15/13 11:09	05/18/13 08:45
60144985014	DR-3_20130515	Water	05/15/13 11:10	05/18/13 08:45

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985001	MW-4 SHALLOW_20130516	EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60144985002	P13-102_20130516	EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60144985003	MW-4 DEEP_20130516	EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985004	P13-103_20130516	EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
60144985005	MW-1 DEEP_20130516	SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985006	<b>MW-1 SHALLOW_20130516</b>	EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
60144985007	<b>MW-204_20130516</b>	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985008	MW-102_20130515	SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60144985009	MW-101_20130515	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985010	GW-7_20130515	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
60144985011	MW-6 DEEP_20130515	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60144985012	MW-6 SHALLOW_20130515	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60144985013	DR-8_20130515	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
60144985014	DR-3_20130515	SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	JGP	4	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	RJS	23	PASI-M
		EPA 200.8	SMW	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TJT	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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**Method:** EPA 200.7

**Description:** 200.7 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22809

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985004,60144985010

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1195027)
- Calcium, Dissolved

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### **General Information:**

14 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Sample Preparation:**

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39491

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985001,60144985011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1442084)
  - Aluminum
  - Calcium
  - Iron
  - Potassium
- MS (Lab ID: 1442086)
  - Aluminum
  - Calcium
  - Iron
  - Manganese
  - Potassium
- MSD (Lab ID: 1442085)
  - Aluminum
  - Calcium

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

QC Batch: MPRP/39491

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985001,60144985011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Magnesium

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

Analyte Comments:

QC Batch: MPRP/39491

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- MW-6 DEEP\_20130515 (Lab ID: 60144985011)
  - Beryllium
- P13-102\_20130516 (Lab ID: 60144985002)
  - Beryllium

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1442084)
  - Calcium
- MS (Lab ID: 1442086)
  - Calcium
  - Manganese
- MSD (Lab ID: 1442085)
  - Calcium

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

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**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39499

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985001,60144985011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1442125)
  - Calcium, Dissolved
  - Sodium, Dissolved
- MS (Lab ID: 1442127)
  - Calcium, Dissolved
  - Iron, Dissolved
  - Magnesium, Dissolved
  - Manganese, Dissolved
- MSD (Lab ID: 1442126)
  - Calcium, Dissolved

**Additional Comments:**

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

### Analyte Comments:

QC Batch: MPRP/39499

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DR-3\_20130515 (Lab ID: 60144985014)
  - Beryllium, Dissolved
- DR-8\_20130515 (Lab ID: 60144985013)
  - Beryllium, Dissolved
- GW-7\_20130515 (Lab ID: 60144985010)
  - Beryllium, Dissolved
- MW-6 SHALLOW\_20130515 (Lab ID: 60144985012)
  - Beryllium, Dissolved

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1442125)
  - Calcium, Dissolved
- MS (Lab ID: 1442127)
  - Calcium, Dissolved
  - Manganese, Dissolved
- MSD (Lab ID: 1442126)
  - Calcium, Dissolved

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

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**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MPRP/22808

B: Analyte was detected in the associated method blank.

- BLANK for HBN 292452 [MPRP/228 (Lab ID: 1195012)]
  - Antimony, Dissolved
  - Thallium, Dissolved

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22808

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985006, 60144985013

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1195041)
  - Manganese, Dissolved
  - Zinc, Dissolved

### Additional Comments:

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** EPA 245.1

**Description:** 245.1 Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 245.1**

**Description:** 245.1 Mercury, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 245.1**

**Description:** 245.1 Potentially Diss Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 2510B**

**Description:** 2510B Specific Conductance  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** Calculated

**Description:** Salinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for Calculated. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 2320B**  
**Description:** 2320B Alkalinity  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 2540C**

**Description:** 2540C Total Dissolved Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 2540D**

**Description:** 2540D Total Suspended Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 4500-S-2 D**

**Description:** 4500S2D Sulfide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WET/41369

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144745010

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1190518)
  - Sulfide, Total

QC Batch: WET/41423

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144818001

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1191765)
  - Sulfide, Total

QC Batch: WET/41424

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985007

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 1191768)
  - Sulfide, Total

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **EPA 300.0**

**Description:** 300.0 IC Anions 28 Days

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

**General Information:**

14 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** EPA 353.2

**Description:** 353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/24877

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985001,60145571002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1195323)
- Nitrogen, NO<sub>2</sub> plus NO<sub>3</sub>

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** **SM 4500-CN-E**

**Description:** 4500CNE Cyanide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 14, 2013

### General Information:

14 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

---

**Method:** SM 5310C  
**Description:** 5310C TOC  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 14, 2013

### General Information:

14 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

- DR-8\_20130515 (Lab ID: 60144985013)
- DR-3\_20130515 (Lab ID: 60144985014)

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-4 SHALLOW_20130516	Lab ID: 60144985001	Collected: 05/16/13 15:35	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>231000</b> ug/L		100	1	05/28/13 10:35	06/03/13 12:43	7440-70-2	
Magnesium, Dissolved	<b>25500</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 12:43	7439-95-4	
Potassium, Dissolved	<b>3360</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:43	7440-09-7	
Sodium, Dissolved	<b>7090</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:43	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>5050</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 16:04	7429-90-5	M1
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-36-0	
Arsenic	<b>3.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-38-2	
Barium	<b>103</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 16:04	7440-39-3	
Beryllium	<b>0.53</b> ug/L		0.40	2	05/31/13 11:22	06/06/13 16:37	7440-41-7	
Cadmium	<b>1.5</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 16:04	7440-43-9	
Calcium	<b>218000</b> ug/L		400	20	05/31/13 11:22	06/06/13 16:52	7440-70-2	M1
Chromium	<b>5.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-47-3	
Cobalt	<b>1.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-48-4	
Copper	<b>24.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-50-8	
Iron	<b>5700</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 16:04	7439-89-6	M1
Lead	<b>31.6</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:04	7439-92-1	
Magnesium	<b>26400</b> ug/L		10.0	2	05/31/13 11:22	06/06/13 16:37	7439-95-4	M1
Manganese	<b>113</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7439-96-5	
Molybdenum	<b>1.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7439-98-7	
Nickel	<b>4.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-02-0	
Potassium	<b>4140</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 16:04	7440-09-7	M1
Selenium	<b>31.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7782-49-2	
Silica	<b>34400</b> ug/L		1070	20	05/31/13 11:22	06/06/13 16:52	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 16:04	7440-22-4	
Sodium	<b>7080</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 16:04	7440-23-5	
Thallium	<b>0.14</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:04	7440-28-0	
Total Hardness by 2340B	<b>653000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 16:52		
Vanadium	<b>6.3</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:04	7440-62-2	
Zinc	<b>231</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 16:04	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>26.0</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 10:16	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-38-2	
Barium, Dissolved	<b>61.6</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 10:16	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 10:16	7440-41-7	
Cadmium, Dissolved	<b>1.3</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 10:16	7440-43-9	
Calcium, Dissolved	<b>222000</b> ug/L		500	25	05/31/13 11:19	06/05/13 10:41	7440-70-2	M1
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-48-4	
Copper, Dissolved	<b>2.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/31/13 11:19	06/05/13 10:16	7439-89-6	
Lead, Dissolved	<b>0.36</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 10:16	7439-92-1	
Magnesium, Dissolved	<b>25000</b> ug/L		25.0	5	05/31/13 11:19	06/05/13 10:36	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Sample: MW-4 SHALLOW_20130516	Lab ID: 60144985001	Collected: 05/16/13 15:35	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	7.0 ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7439-96-5	
Molybdenum, Dissolved	1.3 ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7439-98-7	
Nickel, Dissolved	4.1 ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-02-0	
Potassium, Dissolved	3040 ug/L		20.0	1	05/31/13 11:19	06/05/13 10:16	7440-09-7	
Selenium, Dissolved	30.8 ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:16	7440-22-4	
Sodium, Dissolved	6680 ug/L		50.0	1	05/31/13 11:19	06/05/13 10:16	7440-23-5	M1
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 10:16	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 10:16	7440-62-2	
Zinc, Dissolved	155 ug/L		5.0	1	05/31/13 11:19	06/05/13 10:16	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	2200 ug/L		50.0	1	05/28/13 10:35	05/30/13 12:45	7429-90-5	
Antimony, Dissolved	0.16J ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-36-0	B
Arsenic, Dissolved	3.3 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-38-2	
Barium, Dissolved	74.2 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-39-3	
Beryllium, Dissolved	0.42J ug/L		0.50	1	05/28/13 10:35	05/30/13 12:45	7440-41-7	
Cadmium, Dissolved	1.6 ug/L		0.50	1	05/28/13 10:35	05/30/13 12:45	7440-43-9	
Chromium, Dissolved	6.8 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-47-3	
Cobalt, Dissolved	2.0 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-48-4	
Copper, Dissolved	27.1 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-50-8	
Iron, Dissolved	3140 ug/L		50.0	1	05/28/13 10:35	05/30/13 12:45	7439-89-6	
Lead, Dissolved	44.1 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7439-92-1	
Manganese, Dissolved	145 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7439-96-5	
Molybdenum, Dissolved	1.1 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7439-98-7	
Nickel, Dissolved	4.3 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-02-0	
Selenium, Dissolved	31.8 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7782-49-2	
Silver, Dissolved	0.18J ug/L		0.50	1	05/28/13 10:35	05/30/13 12:45	7440-22-4	
Thallium, Dissolved	0.33J ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-28-0	B
Vanadium, Dissolved	3.3 ug/L		1.0	1	05/28/13 10:35	05/30/13 12:45	7440-62-2	
Zinc, Dissolved	234 ug/L		10.0	1	05/28/13 10:35	05/30/13 12:45	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:28	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:34	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:00	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	1350 umhos/cm		10.0	1			05/24/13 11:05	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-4 SHALLOW_20130516	Lab ID: 60144985001	Collected: 05/16/13 15:35	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>865</b> mg/L		6.4	1		05/24/13 11:05		
Salinity (as seawater)	<b>0.67</b> PSU		0.014	1		05/24/13 11:05		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>287</b> mg/L		20.0	1		05/28/13 13:23		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/28/13 13:23		
Alkalinity, Total as CaCO3	<b>287</b> mg/L		20.0	1		05/28/13 13:23		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>940</b> mg/L		5.0	1		05/20/13 13:43		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>249</b> mg/L		5.0	1		05/21/13 08:30		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/22/13 13:22	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.1</b> mg/L		1.0	1		06/02/13 12:24	16887-00-6	
Sulfate	<b>416</b> mg/L		50.0	50		06/02/13 13:18	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.33</b> mg/L		0.10	1		05/29/13 10:30		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:03	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.6</b> mg/L		1.0	1		06/05/13 11:39	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-102_20130516	Lab ID: 60144985002	Collected: 05/16/13 15:45	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>333000</b> ug/L		100	1	05/28/13 10:35	06/03/13 12:45	7440-70-2	
Magnesium, Dissolved	<b>48300</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 12:45	7439-95-4	
Potassium, Dissolved	<b>5110</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:45	7440-09-7	
Sodium, Dissolved	<b>12200</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:45	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>555</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 15:27	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-36-0	
Arsenic	<b>1.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-38-2	
Barium	<b>26.6</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 15:27	7440-39-3	
Beryllium	ND ug/L		0.40	2	05/31/13 11:22	06/06/13 16:57	7440-41-7	D3
Cadmium	<b>0.12</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 15:27	7440-43-9	
Calcium	<b>314000</b> ug/L		400	20	05/31/13 11:22	06/06/13 17:01	7440-70-2	
Chromium	<b>1.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-47-3	
Cobalt	<b>12.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-48-4	
Copper	<b>2.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-50-8	
Iron	<b>2680</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 15:27	7439-89-6	
Lead	<b>3.7</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 15:27	7439-92-1	
Magnesium	<b>47500</b> ug/L		100	20	05/31/13 11:22	06/06/13 17:01	7439-95-4	
Manganese	<b>22400</b> ug/L		50.0	100	05/31/13 11:22	06/10/13 12:43	7439-96-5	
Molybdenum	<b>4.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7439-98-7	
Nickel	<b>4.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-02-0	
Potassium	<b>4960</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 15:27	7440-09-7	
Selenium	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7782-49-2	
Silica	<b>20800</b> ug/L		1070	20	05/31/13 11:22	06/06/13 17:01	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 15:27	7440-22-4	
Sodium	<b>12200</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 15:27	7440-23-5	
Thallium	ND ug/L		0.10	1	05/31/13 11:22	06/05/13 15:27	7440-28-0	
Total Hardness by 2340B	<b>980000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 17:01		
Vanadium	<b>1.2</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 15:27	7440-62-2	
Zinc	<b>85.4</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 15:27	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>39.4</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 10:46	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-36-0	
Arsenic, Dissolved	<b>0.81</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-38-2	
Barium, Dissolved	<b>17.4</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 10:46	7440-39-3	
Beryllium, Dissolved	<b>0.22</b> ug/L		0.20	1	05/31/13 11:19	06/05/13 10:46	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	05/31/13 11:19	06/05/13 10:46	7440-43-9	
Calcium, Dissolved	<b>306000</b> ug/L		400	20	05/31/13 11:19	06/05/13 10:50	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-47-3	
Cobalt, Dissolved	<b>12.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-48-4	
Copper, Dissolved	<b>0.59</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-50-8	
Iron, Dissolved	<b>1660</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 10:46	7439-89-6	
Lead, Dissolved	<b>0.12</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 10:46	7439-92-1	
Magnesium, Dissolved	<b>48100</b> ug/L		100	20	05/31/13 11:19	06/05/13 10:50	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-102_20130516	Lab ID: 60144985002	Collected: 05/16/13 15:45	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>21500</b> ug/L		100	200	05/31/13 11:19	06/06/13 16:05	7439-96-5	
Molybdenum, Dissolved	<b>3.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7439-98-7	
Nickel, Dissolved	<b>4.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-02-0	
Potassium, Dissolved	<b>4820</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 10:46	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 10:46	7440-22-4	
Sodium, Dissolved	<b>14000</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 10:46	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 10:46	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 10:46	7440-62-2	
Zinc, Dissolved	<b>72.6</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 10:46	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>140</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:49	7429-90-5	
Antimony, Dissolved	<b>0.092J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-36-0	B
Arsenic, Dissolved	<b>0.97J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-38-2	
Barium, Dissolved	<b>20.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-39-3	
Beryllium, Dissolved	<b>0.16J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:49	7440-41-7	
Cadmium, Dissolved	<b>0.16J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:49	7440-43-9	
Chromium, Dissolved	<b>2.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-47-3	
Cobalt, Dissolved	<b>11.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-48-4	
Copper, Dissolved	<b>2.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-50-8	
Iron, Dissolved	<b>2030</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:49	7439-89-6	
Lead, Dissolved	<b>2.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7439-92-1	
Manganese, Dissolved	<b>21400</b> ug/L		50.0	50	05/28/13 10:35	05/30/13 14:26	7439-96-5	
Molybdenum, Dissolved	<b>3.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7439-98-7	
Nickel, Dissolved	<b>4.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 12:49	7440-22-4	
Thallium, Dissolved	<b>0.32J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-28-0	B
Vanadium, Dissolved	<b>0.52J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:49	7440-62-2	
Zinc, Dissolved	<b>78.6</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 12:49	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:35	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:40	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:03	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1880</b> umhos/cm		10.0	1			05/24/13 11:07	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1210</b> mg/L		6.4	1			05/24/13 11:07	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-102_20130516	Lab ID: 60144985002	Collected: 05/16/13 15:45	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.95</b>	PSU	0.014	1		05/24/13 11:07		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>151</b>	mg/L	20.0	1		05/28/13 13:27		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/28/13 13:27		
Alkalinity, Total as CaCO3	<b>151</b>	mg/L	20.0	1		05/28/13 13:27		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1610</b>	mg/L	5.0	1		05/20/13 13:43		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>35.0</b>	mg/L	5.0	1		05/21/13 08:31		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/22/13 13:22 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>2.4</b>	mg/L	1.0	1		06/02/13 15:04 16887-00-6		
Sulfate	<b>933</b>	mg/L	100	100		06/02/13 14:11 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 10:34		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:04 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/05/13 11:57 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-4 DEEP_20130516	Lab ID: 60144985003	Collected: 05/16/13 15:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>261000</b> ug/L		100	1	05/28/13 10:35	06/03/13 12:47	7440-70-2	
Magnesium, Dissolved	<b>30800</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 12:47	7439-95-4	
Potassium, Dissolved	<b>3080</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:47	7440-09-7	
Sodium, Dissolved	<b>6690</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:47	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>3910</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 15:36	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-36-0	
Arsenic	<b>8.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-38-2	
Barium	<b>67.7</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 15:36	7440-39-3	
Beryllium	<b>0.52</b> ug/L		0.40	2	05/31/13 11:22	06/06/13 17:05	7440-41-7	
Cadmium	<b>3.1</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 15:36	7440-43-9	
Calcium	<b>259000</b> ug/L		400	20	05/31/13 11:22	06/06/13 17:10	7440-70-2	
Chromium	<b>4.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-47-3	
Cobalt	<b>4.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-48-4	
Copper	<b>40.8</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-50-8	
Iron	<b>7560</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 15:36	7439-89-6	
Lead	<b>40.9</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 15:36	7439-92-1	
Magnesium	<b>32700</b> ug/L		10.0	2	05/31/13 11:22	06/06/13 17:05	7439-95-4	
Manganese	<b>695</b> ug/L		1.0	2	05/31/13 11:22	06/06/13 17:05	7439-96-5	
Molybdenum	<b>5.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7439-98-7	
Nickel	<b>4.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-02-0	
Potassium	<b>3720</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 15:36	7440-09-7	
Selenium	<b>49.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7782-49-2	
Silica	<b>25700</b> ug/L		1070	20	05/31/13 11:22	06/06/13 17:10	7631-86-9	
Silver	<b>0.88</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 15:36	7440-22-4	
Sodium	<b>6880</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 15:36	7440-23-5	
Thallium	<b>0.16</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 15:36	7440-28-0	
Total Hardness by 2340B	<b>781000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 17:10		
Vanadium	<b>7.6</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 15:36	7440-62-2	
Zinc	<b>416</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 15:36	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>35.8</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 13:08	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-38-2	
Barium, Dissolved	<b>16.4</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 13:08	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 13:08	7440-41-7	
Cadmium, Dissolved	<b>2.0</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 13:08	7440-43-9	
Calcium, Dissolved	<b>257000</b> ug/L		400	20	05/31/13 11:19	06/05/13 13:12	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-48-4	
Copper, Dissolved	<b>3.9</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/31/13 11:19	06/05/13 13:08	7439-89-6	
Lead, Dissolved	<b>0.13</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:08	7439-92-1	
Magnesium, Dissolved	<b>32100</b> ug/L		100	20	05/31/13 11:19	06/05/13 13:12	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-4 DEEP_20130516	Lab ID: 60144985003	Collected: 05/16/13 15:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>4.0</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7439-96-5	
Molybdenum, Dissolved	<b>1.9</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7439-98-7	
Nickel, Dissolved	<b>0.84</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-02-0	
Potassium, Dissolved	<b>3070</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 13:08	7440-09-7	
Selenium, Dissolved	<b>50.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:08	7440-22-4	
Sodium, Dissolved	<b>6960</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:08	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:08	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:08	7440-62-2	
Zinc, Dissolved	<b>302</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:08	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1770</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:53	7429-90-5	
Antimony, Dissolved	<b>0.21J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-36-0	B
Arsenic, Dissolved	<b>5.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-38-2	
Barium, Dissolved	<b>42.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-39-3	
Beryllium, Dissolved	<b>0.27J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:53	7440-41-7	
Cadmium, Dissolved	<b>3.3</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:53	7440-43-9	
Chromium, Dissolved	<b>6.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-47-3	
Cobalt, Dissolved	<b>2.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-48-4	
Copper, Dissolved	<b>41.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-50-8	
Iron, Dissolved	<b>4220</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:53	7439-89-6	
Lead, Dissolved	<b>39.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7439-92-1	
Manganese, Dissolved	<b>355</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7439-96-5	
Molybdenum, Dissolved	<b>0.79J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7439-98-7	
Nickel, Dissolved	<b>4.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-02-0	
Selenium, Dissolved	<b>47.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7782-49-2	
Silver, Dissolved	<b>0.65</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:53	7440-22-4	
Thallium, Dissolved	<b>0.27J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-28-0	B
Vanadium, Dissolved	<b>3.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:53	7440-62-2	
Zinc, Dissolved	<b>403</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 12:53	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:43	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:42	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:05	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1440</b> umhos/cm		10.0	1			05/24/13 11:08	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>925</b> mg/L		6.4	1			05/24/13 11:08	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-4 DEEP_20130516	Lab ID: 60144985003	Collected: 05/16/13 15:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.72</b> PSU		0.014	1		05/24/13 11:08		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>322</b> mg/L		20.0	1		05/28/13 13:31		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		05/28/13 13:31		
Alkalinity, Total as CaCO <sub>3</sub>	<b>322</b> mg/L		20.0	1		05/28/13 13:31		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1080</b> mg/L		5.0	1		05/20/13 13:44		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>199</b> mg/L		5.0	1		05/21/13 08:32		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/22/13 13:23 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.1</b> mg/L		1.0	1		06/02/13 15:21 16887-00-6		
Sulfate	<b>527</b> mg/L		100	100		06/02/13 15:39 14808-79-8		
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	<b>0.11</b> mg/L		0.10	1		05/29/13 10:35		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:08 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.4</b> mg/L		1.0	1		06/05/13 12:13 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-103_20130516	Lab ID: 60144985004	Collected: 05/16/13 15:55	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>273000</b> ug/L		100	1	05/28/13 10:35	06/03/13 12:50	7440-70-2	M1
Magnesium, Dissolved	<b>31300</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 12:50	7439-95-4	
Potassium, Dissolved	<b>4780</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:50	7440-09-7	
Sodium, Dissolved	<b>10500</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:50	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>15300</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 17:03	7429-90-5	
Antimony	<b>1.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7440-36-0	
Arsenic	<b>145</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7440-38-2	
Barium	<b>370</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 17:03	7440-39-3	
Beryllium	<b>1.5</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 17:29	7440-41-7	
Cadmium	<b>20.4</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 17:03	7440-43-9	
Calcium	<b>283000</b> ug/L		400	20	05/31/13 11:22	06/06/13 17:34	7440-70-2	
Chromium	<b>29.1</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7440-47-3	
Cobalt	<b>22.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7440-48-4	
Copper	<b>1070</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 17:29	7440-50-8	
Iron	<b>206000</b> ug/L		1000	20	05/31/13 11:22	06/06/13 17:34	7439-89-6	
Lead	<b>3730</b> ug/L		2.0	20	05/31/13 11:22	06/06/13 17:34	7439-92-1	
Magnesium	<b>38600</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 17:29	7439-95-4	
Manganese	<b>3380</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 17:34	7439-96-5	
Molybdenum	<b>17.8</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7439-98-7	
Nickel	<b>34.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7440-02-0	
Potassium	<b>8680</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 17:03	7440-09-7	
Selenium	<b>10.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:03	7782-49-2	
Silica	<b>79800</b> ug/L		1070	20	05/31/13 11:22	06/06/13 17:34	7631-86-9	
Silver	<b>40.4</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 17:29	7440-22-4	
Sodium	<b>11000</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:03	7440-23-5	
Thallium	<b>1.4</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:03	7440-28-0	
Total Hardness by 2340B	<b>865000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 17:34		
Vanadium	<b>23.2</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:03	7440-62-2	
Zinc	<b>2860</b> ug/L		100	20	05/31/13 11:22	06/06/13 17:34	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>4.8</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 13:16	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-36-0	
Arsenic, Dissolved	<b>29.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-38-2	
Barium, Dissolved	<b>19.8</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 13:16	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 13:16	7440-41-7	
Cadmium, Dissolved	<b>0.17</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 13:16	7440-43-9	
Calcium, Dissolved	<b>261000</b> ug/L		400	20	05/31/13 11:19	06/05/13 13:20	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-47-3	
Cobalt, Dissolved	<b>2.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-48-4	
Copper, Dissolved	<b>1.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-50-8	
Iron, Dissolved	<b>12500</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:16	7439-89-6	
Lead, Dissolved	<b>0.23</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:16	7439-92-1	
Magnesium, Dissolved	<b>31600</b> ug/L		100	20	05/31/13 11:19	06/05/13 13:20	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-103_20130516	Lab ID: 60144985004	Collected: 05/16/13 15:55	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>2780</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 13:20	7439-96-5	
Molybdenum, Dissolved	<b>7.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7439-98-7	
Nickel, Dissolved	<b>6.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-02-0	
Potassium, Dissolved	<b>4100</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 13:16	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:16	7440-22-4	
Sodium, Dissolved	<b>10600</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:16	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:16	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:16	7440-62-2	
Zinc, Dissolved	<b>170</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:16	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>3580</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:58	7429-90-5	
Antimony, Dissolved	<b>0.57J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-36-0	
Arsenic, Dissolved	<b>117</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-38-2	
Barium, Dissolved	<b>32.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-39-3	
Beryllium, Dissolved	<b>0.95</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:58	7440-41-7	
Cadmium, Dissolved	<b>13.4</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:58	7440-43-9	
Chromium, Dissolved	<b>12.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-47-3	
Cobalt, Dissolved	<b>6.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-48-4	
Copper, Dissolved	<b>487</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-50-8	
Iron, Dissolved	<b>56000</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 12:58	7439-89-6	
Lead, Dissolved	<b>2620</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7439-92-1	
Manganese, Dissolved	<b>3070</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7439-96-5	
Molybdenum, Dissolved	<b>6.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7439-98-7	
Nickel, Dissolved	<b>12.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-02-0	
Selenium, Dissolved	<b>3.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7782-49-2	
Silver, Dissolved	<b>0.86</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 12:58	7440-22-4	
Thallium, Dissolved	<b>0.67J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-28-0	B
Vanadium, Dissolved	<b>7.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 12:58	7440-62-2	
Zinc, Dissolved	<b>1690</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 12:58	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:45	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:44	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:16	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1520</b> umhos/cm		10.0	1			05/24/13 11:09	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>976</b> mg/L		6.4	1			05/24/13 11:09	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: P13-103_20130516	Lab ID: 60144985004	Collected: 05/16/13 15:55	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.76</b>	PSU	0.014	1		05/24/13 11:09		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>97.1</b>	mg/L	20.0	1		05/28/13 13:35		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/28/13 13:35		
Alkalinity, Total as CaCO3	<b>97.1</b>	mg/L	20.0	1		05/28/13 13:35		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>984</b>	mg/L	5.0	1		05/20/13 13:45		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>2220</b>	mg/L	5.0	1		05/21/13 08:32		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/22/13 13:23 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.3</b>	mg/L	1.0	1		06/02/13 15:57 16887-00-6		
Sulfate	<b>846</b>	mg/L	100	100		06/02/13 16:15 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.15</b>	mg/L	0.10	1		05/29/13 10:36		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:09 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.2</b>	mg/L	1.0	1		06/05/13 12:22 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-1 DEEP_20130516	Lab ID: 60144985005	Collected: 05/16/13 16:05	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>235000</b> ug/L		100	1	05/28/13 10:35	06/03/13 12:58	7440-70-2	
Magnesium, Dissolved	<b>20300</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 12:58	7439-95-4	
Potassium, Dissolved	<b>9480</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:58	7440-09-7	
Sodium, Dissolved	<b>12600</b> ug/L		500	1	05/28/13 10:35	06/03/13 12:58	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>301</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 16:34	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-36-0	
Arsenic	<b>0.79</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-38-2	
Barium	<b>37.6</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 16:34	7440-39-3	
Beryllium	ND ug/L		0.20	1	05/31/13 11:22	06/05/13 16:34	7440-41-7	
Cadmium	<b>2.5</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 16:34	7440-43-9	
Calcium	<b>234000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:26	7440-70-2	
Chromium	<b>0.66</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-47-3	
Cobalt	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-48-4	
Copper	<b>10.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-50-8	
Iron	<b>827</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 16:34	7439-89-6	
Lead	<b>16.8</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:34	7439-92-1	
Magnesium	<b>20500</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 16:34	7439-95-4	
Manganese	<b>98.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7439-96-5	
Molybdenum	<b>10.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7439-98-7	
Nickel	<b>0.61</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-02-0	
Potassium	<b>9210</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 16:34	7440-09-7	
Selenium	<b>11.8</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7782-49-2	
Silica	<b>12900</b> ug/L		1070	20	05/31/13 11:22	06/06/13 18:26	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 16:34	7440-22-4	
Sodium	<b>12600</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 16:34	7440-23-5	
Thallium	<b>0.13</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:34	7440-28-0	
Total Hardness by 2340B	<b>668000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:26		
Vanadium	<b>0.52</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 16:34	7440-62-2	
Zinc	<b>541</b> ug/L		100	20	05/31/13 11:22	06/06/13 18:26	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>6.8</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 13:25	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-38-2	
Barium, Dissolved	<b>18.7</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 13:25	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 13:25	7440-41-7	
Cadmium, Dissolved	<b>2.0</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 13:25	7440-43-9	
Calcium, Dissolved	<b>228000</b> ug/L		400	20	05/31/13 11:19	06/05/13 13:29	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-48-4	
Copper, Dissolved	<b>2.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/31/13 11:19	06/05/13 13:25	7439-89-6	
Lead, Dissolved	<b>0.38</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:25	7439-92-1	
Magnesium, Dissolved	<b>20100</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:25	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-1 DEEP_20130516	Lab ID: 60144985005	Collected: 05/16/13 16:05	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>8.5</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7439-96-5	
Molybdenum, Dissolved	<b>10</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7439-98-7	
Nickel, Dissolved	<b>0.52</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-02-0	
Potassium, Dissolved	<b>9020</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 13:25	7440-09-7	
Selenium, Dissolved	<b>11.0</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:25	7440-22-4	
Sodium, Dissolved	<b>12400</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:25	7440-23-5	
Thallium, Dissolved	<b>0.12</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:25	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:25	7440-62-2	
Zinc, Dissolved	<b>374</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:25	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>116</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:02	7429-90-5	
Antimony, Dissolved	<b>0.18J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-36-0	B
Arsenic, Dissolved	<b>1.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-38-2	
Barium, Dissolved	<b>23.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:02	7440-41-7	
Cadmium, Dissolved	<b>2.4</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:02	7440-43-9	
Chromium, Dissolved	<b>3.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-47-3	
Cobalt, Dissolved	<b>0.054J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-48-4	
Copper, Dissolved	<b>8.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-50-8	
Iron, Dissolved	<b>493</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:02	7439-89-6	
Lead, Dissolved	<b>12.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7439-92-1	
Manganese, Dissolved	<b>54.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7439-96-5	
Molybdenum, Dissolved	<b>9.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7439-98-7	
Nickel, Dissolved	<b>1.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-02-0	
Selenium, Dissolved	<b>11.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:02	7440-22-4	
Thallium, Dissolved	<b>0.35J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-28-0	B
Vanadium, Dissolved	<b>0.44J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:02	7440-62-2	
Zinc, Dissolved	<b>455</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:02	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:48	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:52	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:18	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1330</b> umhos/cm		10.0	1			05/24/13 11:13	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>851</b> mg/L		6.4	1			05/24/13 11:13	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-1 DEEP_20130516	Lab ID: 60144985005	Collected: 05/16/13 16:05	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.66</b>	PSU	0.014	1		05/24/13 11:13		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>89.2</b>	mg/L	20.0	1		05/28/13 13:47		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/28/13 13:47		
Alkalinity, Total as CaCO3	<b>89.2</b>	mg/L	20.0	1		05/28/13 13:47		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1080</b>	mg/L	5.0	1		05/20/13 13:45		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>14.0</b>	mg/L	5.0	1		05/21/13 08:33		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/22/13 13:24 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/02/13 16:44 16887-00-6		
Sulfate	<b>688</b>	mg/L	100	100		06/02/13 17:02 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 10:36		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:12 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/05/13 12:29 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-1 SHALLOW_20130516	Lab ID: 60144985006	Collected: 05/16/13 16:10	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>228000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:05	7440-70-2	
Magnesium, Dissolved	<b>20600</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:05	7439-95-4	
Potassium, Dissolved	<b>7640</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:05	7440-09-7	
Sodium, Dissolved	<b>12000</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:05	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>8330</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 17:14	7429-90-5	
Antimony	<b>0.52</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-36-0	
Arsenic	<b>10.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-38-2	
Barium	<b>146</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 17:14	7440-39-3	
Beryllium	<b>0.55</b> ug/L		0.40	2	05/31/13 11:22	06/06/13 17:39	7440-41-7	
Cadmium	<b>1.1</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 17:14	7440-43-9	
Calcium	<b>229000</b> ug/L		400	20	05/31/13 11:22	06/06/13 17:44	7440-70-2	
Chromium	<b>14.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-47-3	
Cobalt	<b>5.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-48-4	
Copper	<b>43.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-50-8	
Iron	<b>13500</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:14	7439-89-6	
Lead	<b>119</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:14	7439-92-1	
Magnesium	<b>24600</b> ug/L		10.0	2	05/31/13 11:22	06/06/13 17:39	7439-95-4	
Manganese	<b>539</b> ug/L		1.0	2	05/31/13 11:22	06/06/13 17:39	7439-96-5	
Molybdenum	<b>11.1</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7439-98-7	
Nickel	<b>9.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7440-02-0	
Potassium	<b>8690</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 17:14	7440-09-7	
Selenium	<b>12.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:14	7782-49-2	
Silica	<b>39700</b> ug/L		1070	20	05/31/13 11:22	06/06/13 17:44	7631-86-9	
Silver	<b>1.3</b> ug/L		1.0	2	05/31/13 11:22	06/06/13 17:39	7440-22-4	
Sodium	<b>12400</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:14	7440-23-5	
Thallium	<b>0.35</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:14	7440-28-0	
Total Hardness by 2340B	<b>672000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 17:44		
Vanadium	<b>13.5</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:14	7440-62-2	
Zinc	<b>189</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 17:14	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>486</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 13:33	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-36-0	
Arsenic, Dissolved	<b>0.58</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-38-2	
Barium, Dissolved	<b>28.6</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 13:33	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 13:33	7440-41-7	
Cadmium, Dissolved	<b>0.36</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 13:33	7440-43-9	
Calcium, Dissolved	<b>226000</b> ug/L		400	20	05/31/13 11:19	06/05/13 13:38	7440-70-2	
Chromium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-48-4	
Copper, Dissolved	<b>3.2</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-50-8	
Iron, Dissolved	<b>750</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:33	7439-89-6	
Lead, Dissolved	<b>6.8</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:33	7439-92-1	
Magnesium, Dissolved	<b>20700</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:33	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Sample: MW-1 SHALLOW_20130516	Lab ID: 60144985006	Collected: 05/16/13 16:10	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>34.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7439-96-5	
Molybdenum, Dissolved	<b>8.3</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7439-98-7	
Nickel, Dissolved	<b>0.73</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-02-0	
Potassium, Dissolved	<b>7500</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 13:33	7440-09-7	
Selenium, Dissolved	<b>10.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:33	7440-22-4	
Sodium, Dissolved	<b>12400</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:33	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:33	7440-28-0	
Vanadium, Dissolved	<b>0.80</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:33	7440-62-2	
Zinc, Dissolved	<b>42.9</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:33	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>2020</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:06	7429-90-5	
Antimony, Dissolved	<b>0.25J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-36-0	B
Arsenic, Dissolved	<b>2.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-38-2	
Barium, Dissolved	<b>40.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-39-3	
Beryllium, Dissolved	<b>0.29J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:06	7440-41-7	
Cadmium, Dissolved	<b>1.0</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:06	7440-43-9	
Chromium, Dissolved	<b>6.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-47-3	
Cobalt, Dissolved	<b>2.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-48-4	
Copper, Dissolved	<b>20.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-50-8	
Iron, Dissolved	<b>3290</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:06	7439-89-6	
Lead, Dissolved	<b>66.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7439-92-1	
Manganese, Dissolved	<b>438</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7439-96-5	
Molybdenum, Dissolved	<b>2.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7439-98-7	
Nickel, Dissolved	<b>4.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-02-0	
Selenium, Dissolved	<b>9.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7782-49-2	
Silver, Dissolved	<b>0.58</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:06	7440-22-4	
Thallium, Dissolved	<b>0.39J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-28-0	B
Vanadium, Dissolved	<b>3.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:06	7440-62-2	
Zinc, Dissolved	<b>126</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:06	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:50	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:54	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:20	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1280</b> umhos/cm		10.0	1			05/24/13 11:14	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-1 SHALLOW_20130516	Lab ID: 60144985006	Collected: 05/16/13 16:10	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>822</b> mg/L		6.4	1		05/24/13 11:14		
Salinity (as seawater)	<b>0.64</b> PSU		0.014	1		05/24/13 11:14		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>85.9</b> mg/L		20.0	1		05/28/13 13:50		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/28/13 13:50		
Alkalinity, Total as CaCO3	<b>85.9</b> mg/L		20.0	1		05/28/13 13:50		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1040</b> mg/L		5.0	1		05/20/13 13:46		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>260</b> mg/L		5.0	1		05/21/13 08:33		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/22/13 13:24	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/02/13 17:20	16887-00-6	
Sulfate	<b>696</b> mg/L		100	100		06/02/13 17:37	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 10:37		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:12	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/05/13 12:54	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-204_20130516	Lab ID: 60144985007	Collected: 05/16/13 12:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>229000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:07	7440-70-2	
Magnesium, Dissolved	<b>21800</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:07	7439-95-4	
Potassium, Dissolved	<b>2070</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:07	7440-09-7	
Sodium, Dissolved	<b>11800</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:07	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>9010</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 17:24	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-36-0	
Arsenic	<b>3.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-38-2	
Barium	<b>116</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 17:24	7440-39-3	
Beryllium	<b>0.66</b> ug/L		0.40	2	05/31/13 11:22	06/06/13 17:48	7440-41-7	
Cadmium	<b>8.9</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 17:24	7440-43-9	
Calcium	<b>234000</b> ug/L		400	20	05/31/13 11:22	06/06/13 17:53	7440-70-2	
Chromium	<b>19.1</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-47-3	
Cobalt	<b>5.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-48-4	
Copper	<b>18.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-50-8	
Iron	<b>12800</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:24	7439-89-6	
Lead	<b>30.6</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:24	7439-92-1	
Magnesium	<b>28200</b> ug/L		10.0	2	05/31/13 11:22	06/06/13 17:48	7439-95-4	
Manganese	<b>2060</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 17:53	7439-96-5	
Molybdenum	<b>5.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7439-98-7	
Nickel	<b>11.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-02-0	
Potassium	<b>3440</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 17:24	7440-09-7	
Selenium	<b>1.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7782-49-2	
Silica	<b>43700</b> ug/L		1070	20	05/31/13 11:22	06/06/13 17:53	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 17:24	7440-22-4	
Sodium	<b>12300</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:24	7440-23-5	
Thallium	<b>0.18</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:24	7440-28-0	
Total Hardness by 2340B	<b>700000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 17:53		
Vanadium	<b>15.1</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:24	7440-62-2	
Zinc	<b>97.2</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 17:24	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>57.8</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 13:42	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-38-2	
Barium, Dissolved	<b>34.2</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 13:42	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 13:42	7440-41-7	
Cadmium, Dissolved	<b>3.6</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 13:42	7440-43-9	
Calcium, Dissolved	<b>227000</b> ug/L		400	20	05/31/13 11:19	06/05/13 13:47	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-48-4	
Copper, Dissolved	<b>1.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-50-8	
Iron, Dissolved	<b>84.9</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:42	7439-89-6	
Lead, Dissolved	<b>0.29</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:42	7439-92-1	
Magnesium, Dissolved	<b>20800</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:42	7439-95-4	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-204_20130516	Lab ID: 60144985007	Collected: 05/16/13 12:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>1900</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 13:47	7439-96-5	
Molybdenum, Dissolved	<b>3.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7439-98-7	
Nickel, Dissolved	<b>5.0</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-02-0	
Potassium, Dissolved	<b>1780</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 13:42	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 13:42	7440-22-4	
Sodium, Dissolved	<b>11900</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 13:42	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 13:42	7440-28-0	
Vanadium, Dissolved	<b>0.14</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 13:42	7440-62-2	
Zinc, Dissolved	<b>15.8</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 13:42	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1940</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:31	7429-90-5	
Antimony, Dissolved	<b>0.18J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-36-0	B
Arsenic, Dissolved	<b>0.49J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-38-2	
Barium, Dissolved	<b>48.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-39-3	
Beryllium, Dissolved	<b>0.21J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:31	7440-41-7	
Cadmium, Dissolved	<b>8.0</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:31	7440-43-9	
Chromium, Dissolved	<b>9.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-47-3	
Cobalt, Dissolved	<b>2.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-48-4	
Copper, Dissolved	<b>10.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-50-8	
Iron, Dissolved	<b>3850</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:31	7439-89-6	
Lead, Dissolved	<b>22.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7439-92-1	
Manganese, Dissolved	<b>2040</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7439-96-5	
Molybdenum, Dissolved	<b>2.8</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7439-98-7	
Nickel, Dissolved	<b>7.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7782-49-2	
Silver, Dissolved	<b>0.068J</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:31	7440-22-4	
Thallium, Dissolved	<b>0.35J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-28-0	B
Vanadium, Dissolved	<b>3.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:31	7440-62-2	
Zinc, Dissolved	<b>56.2</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:31	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:53	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:56	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:23	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1380</b> umhos/cm		10.0	1			05/24/13 11:15	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>885</b> mg/L		6.4	1			05/24/13 11:15	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-204_20130516	Lab ID: 60144985007	Collected: 05/16/13 12:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.69</b>	PSU	0.014	1		05/24/13 11:15		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>107</b>	mg/L	20.0	1		05/28/13 13:53		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/28/13 13:53		
Alkalinity, Total as CaCO3	<b>107</b>	mg/L	20.0	1		05/28/13 13:53		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1040</b>	mg/L	5.0	1		05/20/13 13:46		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>342</b>	mg/L	5.0	1		05/21/13 08:34		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/22/13 13:25	18496-25-8	M1
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/02/13 18:48	16887-00-6	
Sulfate	<b>623</b>	mg/L	100	100		06/02/13 17:55	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 10:38		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:13	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/05/13 13:02	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-102_20130515	Lab ID: 60144985008	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>232000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:09	7440-70-2	
Magnesium, Dissolved	<b>26700</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:09	7439-95-4	
Potassium, Dissolved	<b>4080</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:09	7440-09-7	
Sodium, Dissolved	<b>5640</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:09	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>14600</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 17:33	7429-90-5	
Antimony	<b>0.67</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-36-0	
Arsenic	<b>20.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-38-2	
Barium	<b>115</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 17:33	7440-39-3	
Beryllium	<b>1.5</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 17:57	7440-41-7	
Cadmium	<b>2.8</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 17:33	7440-43-9	
Calcium	<b>208000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:02	7440-70-2	
Chromium	<b>19.1</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-47-3	
Cobalt	<b>24.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-48-4	
Copper	<b>63.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-50-8	
Iron	<b>23300</b> ug/L		250	5	05/31/13 11:22	06/06/13 17:57	7439-89-6	
Lead	<b>112</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:33	7439-92-1	
Magnesium	<b>31100</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 17:57	7439-95-4	
Manganese	<b>2740</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 18:02	7439-96-5	
Molybdenum	<b>8.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7439-98-7	
Nickel	<b>21.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-02-0	
Potassium	<b>4130</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 17:33	7440-09-7	
Selenium	<b>5.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7782-49-2	
Silica	<b>53600</b> ug/L		1070	20	05/31/13 11:22	06/06/13 18:02	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 17:33	7440-22-4	
Sodium	<b>7050</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:33	7440-23-5	
Thallium	<b>0.36</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:33	7440-28-0	
Total Hardness by 2340B	<b>648000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:02		
Vanadium	<b>24.4</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:33	7440-62-2	
Zinc	<b>606</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 17:57	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>8.2</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 14:06	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-38-2	
Barium, Dissolved	<b>13.9</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 14:06	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 14:06	7440-41-7	
Cadmium, Dissolved	<b>0.29</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 14:06	7440-43-9	
Calcium, Dissolved	<b>203000</b> ug/L		400	20	05/31/13 11:19	06/05/13 14:10	7440-70-2	
Chromium, Dissolved	<b>0.62</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-48-4	
Copper, Dissolved	<b>0.94</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	05/31/13 11:19	06/05/13 14:06	7439-89-6	
Lead, Dissolved	<b>0.25</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:06	7439-92-1	
Magnesium, Dissolved	<b>20900</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 14:06	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-102_20130515	Lab ID: 60144985008	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>4.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7439-96-5	
Molybdenum, Dissolved	<b>0.69</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7439-98-7	
Nickel, Dissolved	<b>0.62</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-02-0	
Potassium, Dissolved	<b>2010</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 14:06	7440-09-7	
Selenium, Dissolved	<b>2.2</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:06	7440-22-4	
Sodium, Dissolved	<b>6980</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:06	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:06	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:06	7440-62-2	
Zinc, Dissolved	<b>50.1</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 14:06	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>36600</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:35	7429-90-5	
Antimony, Dissolved	<b>0.22J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-36-0	B
Arsenic, Dissolved	<b>8.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-38-2	
Barium, Dissolved	<b>254</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-39-3	
Beryllium, Dissolved	<b>18.7</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:35	7440-41-7	
Cadmium, Dissolved	<b>45.5</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:35	7440-43-9	
Chromium, Dissolved	<b>30.8</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-47-3	
Cobalt, Dissolved	<b>65.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-48-4	
Copper, Dissolved	<b>505</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-50-8	
Iron, Dissolved	<b>9260</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:35	7439-89-6	
Lead, Dissolved	<b>302</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7439-92-1	
Manganese, Dissolved	<b>9380</b> ug/L		20.0	20	05/28/13 10:35	05/30/13 14:30	7439-96-5	
Molybdenum, Dissolved	<b>0.40J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7439-98-7	
Nickel, Dissolved	<b>81.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-02-0	
Selenium, Dissolved	<b>26.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7782-49-2	
Silver, Dissolved	<b>2.1</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:35	7440-22-4	
Thallium, Dissolved	<b>0.30J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-28-0	B
Vanadium, Dissolved	<b>9.8</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:35	7440-62-2	
Zinc, Dissolved	<b>6280</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:35	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:55	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 13:58	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:25	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1130</b> umhos/cm		10.0	1			05/24/13 11:16	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>721</b> mg/L		6.4	1			05/24/13 11:16	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-102_20130515	Lab ID: 60144985008	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.56</b> PSU		0.014	1		05/24/13 11:16		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>187</b> mg/L		20.0	1		05/27/13 10:40		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/27/13 10:40		
Alkalinity, Total as CaCO3	<b>187</b> mg/L		20.0	1		05/27/13 10:40		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>844</b> mg/L		5.0	1		05/20/13 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>1250</b> mg/L		5.0	1		05/21/13 08:25		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/21/13 15:11 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/02/13 19:06 16887-00-6		
Sulfate	<b>466</b> mg/L		100	100		06/02/13 19:23 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.77</b> mg/L		0.10	1		05/29/13 10:39		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:15 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.2</b> mg/L		1.0	1		06/05/13 13:10 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-101_20130515	Lab ID: 60144985009	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>290000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:11	7440-70-2	
Magnesium, Dissolved	<b>37700</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:11	7439-95-4	
Potassium, Dissolved	<b>5470</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:11	7440-09-7	
Sodium, Dissolved	<b>13200</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:11	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>13600</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 17:43	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-36-0	
Arsenic	<b>17.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-38-2	
Barium	<b>200</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 17:43	7440-39-3	
Beryllium	<b>1.4</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 18:06	7440-41-7	
Cadmium	<b>6.6</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 17:43	7440-43-9	
Calcium	<b>280000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:11	7440-70-2	
Chromium	<b>23.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-47-3	
Cobalt	<b>14.3</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-48-4	
Copper	<b>130</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-50-8	
Iron	<b>42400</b> ug/L		250	5	05/31/13 11:22	06/06/13 18:06	7439-89-6	
Lead	<b>1440</b> ug/L		0.50	5	05/31/13 11:22	06/06/13 18:06	7439-92-1	
Magnesium	<b>43000</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 18:06	7439-95-4	
Manganese	<b>2300</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 18:11	7439-96-5	
Molybdenum	<b>9.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7439-98-7	
Nickel	<b>21.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7440-02-0	
Potassium	<b>6930</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 17:43	7440-09-7	
Selenium	<b>5.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 17:43	7782-49-2	
Silica	<b>58000</b> ug/L		1070	20	05/31/13 11:22	06/06/13 18:11	7631-86-9	
Silver	<b>7.2</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:06	7440-22-4	
Sodium	<b>13900</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 17:43	7440-23-5	
Thallium	<b>0.71</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:43	7440-28-0	
Total Hardness by 2340B	<b>877000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:11		
Vanadium	<b>21.4</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 17:43	7440-62-2	
Zinc	<b>996</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 18:06	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>56.6</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 14:15	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-36-0	
Arsenic, Dissolved	<b>0.59</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-38-2	
Barium, Dissolved	<b>18.9</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 14:15	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	05/31/13 11:19	06/05/13 14:15	7440-41-7	
Cadmium, Dissolved	<b>0.20</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 14:15	7440-43-9	
Calcium, Dissolved	<b>264000</b> ug/L		400	20	05/31/13 11:19	06/05/13 14:19	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-47-3	
Cobalt, Dissolved	<b>6.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-48-4	
Copper, Dissolved	<b>1.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-50-8	
Iron, Dissolved	<b>4810</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:15	7439-89-6	
Lead, Dissolved	<b>0.90</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:15	7439-92-1	
Magnesium, Dissolved	<b>34600</b> ug/L		100	20	05/31/13 11:19	06/05/13 14:19	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-101_20130515	Lab ID: 60144985009	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>1700</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 14:19	7439-96-5	
Molybdenum, Dissolved	<b>1.9</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7439-98-7	
Nickel, Dissolved	<b>9.7</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-02-0	
Potassium, Dissolved	<b>4550</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 14:15	7440-09-7	
Selenium, Dissolved	<b>1.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:15	7440-22-4	
Sodium, Dissolved	<b>13300</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:15	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:15	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:15	7440-62-2	
Zinc, Dissolved	<b>196</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 14:15	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>6230</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:39	7429-90-5	
Antimony, Dissolved	<b>0.14J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-36-0	B
Arsenic, Dissolved	<b>7.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-38-2	
Barium, Dissolved	<b>48.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-39-3	
Beryllium, Dissolved	<b>2.1</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:39	7440-41-7	
Cadmium, Dissolved	<b>13.1</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:39	7440-43-9	
Chromium, Dissolved	<b>17.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-47-3	
Cobalt, Dissolved	<b>16.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-48-4	
Copper, Dissolved	<b>170</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-50-8	
Iron, Dissolved	<b>27500</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:39	7439-89-6	
Lead, Dissolved	<b>2620</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7439-92-1	
Manganese, Dissolved	<b>2880</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7439-96-5	
Molybdenum, Dissolved	<b>0.80J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7439-98-7	
Nickel, Dissolved	<b>24.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-02-0	
Selenium, Dissolved	<b>3.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:39	7440-22-4	
Thallium, Dissolved	<b>0.92J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-28-0	B
Vanadium, Dissolved	<b>14.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:39	7440-62-2	
Zinc, Dissolved	<b>1520</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:39	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 12:58	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:00	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:27	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1500</b> umhos/cm		10.0	1			05/24/13 11:17	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>961</b> mg/L		6.4	1			05/24/13 11:17	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-101_20130515	Lab ID: 60144985009	Collected: 05/15/13 16:40	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.75</b>	PSU	0.014	1		05/24/13 11:17		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>262</b>	mg/L	20.0	1		05/27/13 10:44		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		05/27/13 10:44		
Alkalinity, Total as CaCO <sub>3</sub>	<b>262</b>	mg/L	20.0	1		05/27/13 10:44		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1030</b>	mg/L	5.0	1		05/20/13 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>1060</b>	mg/L	5.0	1		05/21/13 08:25		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/21/13 15:13 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.3</b>	mg/L	1.0	1		06/02/13 19:41 16887-00-6		
Sulfate	<b>660</b>	mg/L	100	100		06/02/13 20:16 14808-79-8		
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	<b>0.44</b>	mg/L	0.10	1		05/29/13 10:40		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:16 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.1</b>	mg/L	1.0	1		06/05/13 13:19 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: GW-7_20130515	Lab ID: 60144985010	Collected: 05/15/13 16:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>271000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:14	7440-70-2	
Magnesium, Dissolved	<b>35000</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:14	7439-95-4	
Potassium, Dissolved	<b>3200</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:14	7440-09-7	
Sodium, Dissolved	<b>8010</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:14	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>31800</b> ug/L		20.0	5	05/31/13 11:22	06/06/13 18:31	7429-90-5	
Antimony	<b>1.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7440-36-0	
Arsenic	<b>40.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7440-38-2	
Barium	<b>77.8</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 18:08	7440-39-3	
Beryllium	<b>3.5</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 18:31	7440-41-7	
Cadmium	<b>19.3</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 18:08	7440-43-9	
Calcium	<b>279000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:35	7440-70-2	
Chromium	<b>43.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7440-47-3	
Cobalt	<b>21.8</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7440-48-4	
Copper	<b>512</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:31	7440-50-8	
Iron	<b>81800</b> ug/L		250	5	05/31/13 11:22	06/06/13 18:31	7439-89-6	
Lead	<b>1830</b> ug/L		0.50	5	05/31/13 11:22	06/06/13 18:31	7439-92-1	
Magnesium	<b>53000</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 18:31	7439-95-4	
Manganese	<b>1480</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:31	7439-96-5	
Molybdenum	<b>11.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7439-98-7	
Nickel	<b>42.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7440-02-0	
Potassium	<b>6050</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 18:08	7440-09-7	
Selenium	<b>23.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:08	7782-49-2	
Silica	<b>74000</b> ug/L		1070	20	05/31/13 11:22	06/06/13 18:35	7631-86-9	
Silver	<b>7.4</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:31	7440-22-4	
Sodium	<b>8450</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 18:08	7440-23-5	
Thallium	<b>0.83</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:08	7440-28-0	
Total Hardness by 2340B	<b>916000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:35		
Vanadium	<b>31.4</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:08	7440-62-2	
Zinc	<b>3000</b> ug/L		100	20	05/31/13 11:22	06/06/13 18:35	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>616</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 14:23	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-38-2	
Barium, Dissolved	<b>13.8</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 14:23	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.40	2	05/31/13 11:19	06/06/13 15:37	7440-41-7	D3
Cadmium, Dissolved	<b>10.6</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 14:23	7440-43-9	
Calcium, Dissolved	<b>260000</b> ug/L		400	20	05/31/13 11:19	06/05/13 14:28	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-47-3	
Cobalt, Dissolved	<b>10.5</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-48-4	
Copper, Dissolved	<b>10.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-50-8	
Iron, Dissolved	<b>3870</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:23	7439-89-6	
Lead, Dissolved	<b>7.9</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:23	7439-92-1	
Magnesium, Dissolved	<b>36100</b> ug/L		10.0	2	05/31/13 11:19	06/06/13 15:37	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: GW-7_20130515	Lab ID: 60144985010	Collected: 05/15/13 16:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>996</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 14:28	7439-96-5	
Molybdenum, Dissolved	<b>0.97</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7439-98-7	
Nickel, Dissolved	<b>13.3</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-02-0	
Potassium, Dissolved	<b>2470</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 14:23	7440-09-7	
Selenium, Dissolved	<b>1.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:23	7440-22-4	
Sodium, Dissolved	<b>8170</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:23	7440-23-5	
Thallium, Dissolved	<b>0.12</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:23	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:23	7440-62-2	
Zinc, Dissolved	<b>1060</b> ug/L		100	20	05/31/13 11:19	06/05/13 14:28	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>16500</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:43	7429-90-5	
Antimony, Dissolved	<b>0.26J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-36-0	B
Arsenic, Dissolved	<b>4.8</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-38-2	
Barium, Dissolved	<b>23.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-39-3	
Beryllium, Dissolved	<b>2.7</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:43	7440-41-7	
Cadmium, Dissolved	<b>13.7</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:43	7440-43-9	
Chromium, Dissolved	<b>15.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-47-3	
Cobalt, Dissolved	<b>14.8</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-48-4	
Copper, Dissolved	<b>410</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-50-8	
Iron, Dissolved	<b>33000</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:43	7439-89-6	
Lead, Dissolved	<b>1580</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7439-92-1	
Manganese, Dissolved	<b>1110</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7439-96-5	
Molybdenum, Dissolved	<b>1.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7439-98-7	
Nickel, Dissolved	<b>25.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-02-0	
Selenium, Dissolved	<b>6.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7782-49-2	
Silver, Dissolved	<b>1.3</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:43	7440-22-4	
Thallium, Dissolved	<b>0.60J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-28-0	B
Vanadium, Dissolved	<b>4.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:43	7440-62-2	
Zinc, Dissolved	<b>1850</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:43	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	<b>0.28</b> ug/L		0.20	1	05/30/13 14:59	05/31/13 13:00	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:02	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:29	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1490</b> umhos/cm		10.0	1			05/24/13 11:19	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>956</b> mg/L		6.4	1			05/24/13 11:19	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: GW-7_20130515	Lab ID: 60144985010	Collected: 05/15/13 16:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.75</b>	PSU	0.014	1		05/24/13 11:19		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>182</b>	mg/L	20.0	1		05/27/13 10:47		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/27/13 10:47		
Alkalinity, Total as CaCO3	<b>182</b>	mg/L	20.0	1		05/27/13 10:47		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>975</b>	mg/L	5.0	1		05/20/13 13:40		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>1070</b>	mg/L	5.0	1		05/21/13 08:25		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/21/13 15:14 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.1</b>	mg/L	1.0	1		06/02/13 20:52 16887-00-6		
Sulfate	<b>757</b>	mg/L	100	100		06/02/13 21:10 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.60</b>	mg/L	0.10	1		05/29/13 10:41		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:17 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.1</b>	mg/L	1.0	1		06/05/13 13:28 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-6 DEEP_20130515	Lab ID: 60144985011	Collected: 05/15/13 14:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>282000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:18	7440-70-2	
Magnesium, Dissolved	<b>42000</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:18	7439-95-4	
Potassium, Dissolved	<b>6880</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:18	7440-09-7	
Sodium, Dissolved	<b>5200</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:18	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>3710</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 18:18	7429-90-5	M1
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-36-0	
Arsenic	<b>40.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-38-2	
Barium	<b>51.7</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 18:18	7440-39-3	
Beryllium	ND ug/L		1.0	5	05/31/13 11:22	06/06/13 16:09	7440-41-7	D3
Cadmium	<b>2.0</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 18:18	7440-43-9	
Calcium	<b>279000</b> ug/L		400	20	05/31/13 11:22	06/06/13 16:18	7440-70-2	M1
Chromium	<b>3.7</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-47-3	
Cobalt	<b>4.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-48-4	
Copper	<b>23.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-50-8	
Iron	<b>28200</b> ug/L		250	5	05/31/13 11:22	06/06/13 16:09	7439-89-6	M1
Lead	<b>41.2</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:18	7439-92-1	
Magnesium	<b>43900</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 16:09	7439-95-4	
Manganese	<b>6850</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 16:18	7439-96-5	M1
Molybdenum	<b>7.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7439-98-7	
Nickel	<b>5.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-02-0	
Potassium	<b>7180</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 18:18	7440-09-7	M1
Selenium	<b>1.4</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7782-49-2	
Silica	<b>28300</b> ug/L		1070	20	05/31/13 11:22	06/06/13 16:18	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 18:18	7440-22-4	
Sodium	<b>5020</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 18:18	7440-23-5	
Thallium	ND ug/L		0.10	1	05/31/13 11:22	06/05/13 18:18	7440-28-0	
Total Hardness by 2340B	<b>878000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 16:18		
Vanadium	<b>6.7</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:18	7440-62-2	
Zinc	<b>814</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 16:09	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>385</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 14:32	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-36-0	
Arsenic, Dissolved	<b>19.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-38-2	
Barium, Dissolved	<b>17.9</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 14:32	7440-39-3	
Beryllium, Dissolved	<b>0.64</b> ug/L		0.40	2	05/31/13 11:19	06/06/13 15:42	7440-41-7	
Cadmium, Dissolved	<b>0.11</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 14:32	7440-43-9	
Calcium, Dissolved	<b>276000</b> ug/L		400	20	05/31/13 11:19	06/05/13 14:41	7440-70-2	M1
Chromium, Dissolved	<b>0.50</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-47-3	
Cobalt, Dissolved	<b>2.9</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-48-4	
Copper, Dissolved	<b>0.73</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-50-8	
Iron, Dissolved	<b>22800</b> ug/L		100	2	05/31/13 11:19	06/06/13 15:42	7439-89-6	M1
Lead, Dissolved	<b>0.60</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:32	7439-92-1	
Magnesium, Dissolved	<b>41900</b> ug/L		10.0	2	05/31/13 11:19	06/06/13 15:42	7439-95-4	M1

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-6 DEEP_20130515	Lab ID: 60144985011	Collected: 05/15/13 14:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>7120</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 14:41	7439-96-5	M1
Molybdenum, Dissolved	<b>5.9</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7439-98-7	
Nickel, Dissolved	<b>2.5</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-02-0	
Potassium, Dissolved	<b>6510</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 14:32	7440-09-7	
Selenium, Dissolved	<b>0.81</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 14:32	7440-22-4	
Sodium, Dissolved	<b>4970</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 14:32	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 14:32	7440-28-0	
Vanadium, Dissolved	<b>0.13</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 14:32	7440-62-2	
Zinc, Dissolved	<b>328</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 14:32	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1720</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:47	7429-90-5	
Antimony, Dissolved	<b>0.19J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-36-0	B
Arsenic, Dissolved	<b>36.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-38-2	
Barium, Dissolved	<b>32.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-39-3	
Beryllium, Dissolved	<b>0.64</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:47	7440-41-7	
Cadmium, Dissolved	<b>1.6</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:47	7440-43-9	
Chromium, Dissolved	<b>4.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-47-3	
Cobalt, Dissolved	<b>3.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-48-4	
Copper, Dissolved	<b>14.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-50-8	
Iron, Dissolved	<b>25800</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:47	7439-89-6	
Lead, Dissolved	<b>35.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7439-92-1	
Manganese, Dissolved	<b>7230</b> ug/L		20.0	20	05/28/13 10:35	05/30/13 14:34	7439-96-5	
Molybdenum, Dissolved	<b>4.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7439-98-7	
Nickel, Dissolved	<b>5.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-02-0	
Selenium, Dissolved	<b>0.74J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:47	7440-22-4	
Thallium, Dissolved	<b>0.29J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-28-0	B
Vanadium, Dissolved	<b>3.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:47	7440-62-2	
Zinc, Dissolved	<b>775</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:47	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 13:07	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:09	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:32	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1580</b> umhos/cm		10.0	1			05/24/13 11:20	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1010</b> mg/L		6.4	1			05/24/13 11:20	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-6 DEEP_20130515	Lab ID: 60144985011	Collected: 05/15/13 14:30	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.80</b>	PSU	0.014	1		05/24/13 11:20		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>133</b>	mg/L	20.0	1		05/27/13 10:50		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/27/13 10:50		
Alkalinity, Total as CaCO3	<b>133</b>	mg/L	20.0	1		05/27/13 10:50		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1010</b>	mg/L	5.0	1		05/20/13 13:40		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>156</b>	mg/L	5.0	1		05/21/13 08:26		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/21/13 15:14	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.4</b>	mg/L	1.0	1		06/02/13 22:20	16887-00-6	
Sulfate	<b>765</b>	mg/L	100	100		06/02/13 21:27	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.16</b>	mg/L	0.10	1		05/29/13 10:42		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/22/13 15:20	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.4</b>	mg/L	1.0	1		06/05/13 13:37	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

Sample: MW-6 SHALLOW_20130515	Lab ID: 60144985012	Collected: 05/15/13 14:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>368000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:20	7440-70-2	
Magnesium, Dissolved	<b>55400</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:20	7439-95-4	
Potassium, Dissolved	<b>12200</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:20	7440-09-7	
Sodium, Dissolved	<b>4320</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:20	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>44800</b> ug/L		20.0	5	05/31/13 11:22	06/06/13 18:40	7429-90-5	
Antimony	<b>1.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-36-0	
Arsenic	<b>216</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-38-2	
Barium	<b>269</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 18:34	7440-39-3	
Beryllium	<b>3.1</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 18:40	7440-41-7	
Cadmium	<b>34.2</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 18:34	7440-43-9	
Calcium	<b>374000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:45	7440-70-2	
Chromium	<b>45.1</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-47-3	
Cobalt	<b>31.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-48-4	
Copper	<b>249</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-50-8	
Iron	<b>113000</b> ug/L		1000	20	05/31/13 11:22	06/06/13 18:45	7439-89-6	
Lead	<b>400</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:34	7439-92-1	
Magnesium	<b>77500</b> ug/L		25.0	5	05/31/13 11:22	06/06/13 18:40	7439-95-4	
Manganese	<b>7750</b> ug/L		10.0	20	05/31/13 11:22	06/06/13 18:45	7439-96-5	
Molybdenum	<b>16.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7439-98-7	
Nickel	<b>60.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7440-02-0	
Potassium	<b>17000</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 18:34	7440-09-7	
Selenium	<b>13.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:34	7782-49-2	
Silica	<b>159000</b> ug/L		2680	50	05/31/13 11:22	06/10/13 12:48	7631-86-9	
Silver	<b>3.5</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:40	7440-22-4	
Sodium	<b>4370</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 18:34	7440-23-5	
Thallium	<b>1.2</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:34	7440-28-0	
Total Hardness by 2340B	<b>1250000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:45		
Vanadium	<b>56.6</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:34	7440-62-2	
Zinc	<b>6670</b> ug/L		100	20	05/31/13 11:22	06/06/13 18:45	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>827</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 15:02	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-36-0	
Arsenic, Dissolved	<b>35.5</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-38-2	
Barium, Dissolved	<b>17.2</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 15:02	7440-39-3	
Beryllium, Dissolved	ND ug/L		1.0	5	05/31/13 11:19	06/06/13 15:51	7440-41-7	D3
Cadmium, Dissolved	<b>0.27</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 15:02	7440-43-9	
Calcium, Dissolved	<b>355000</b> ug/L		400	20	05/31/13 11:19	06/05/13 15:06	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-47-3	
Cobalt, Dissolved	<b>3.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-48-4	
Copper, Dissolved	<b>1.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-50-8	
Iron, Dissolved	<b>65200</b> ug/L		250	5	05/31/13 11:19	06/06/13 15:51	7439-89-6	
Lead, Dissolved	<b>0.22</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 15:02	7439-92-1	
Magnesium, Dissolved	<b>70900</b> ug/L		25.0	5	05/31/13 11:19	06/06/13 15:51	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Sample: MW-6 SHALLOW_20130515	Lab ID: 60144985012	Collected: 05/15/13 14:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>7390</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 15:06	7439-96-5	
Molybdenum, Dissolved	<b>4.7</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7439-98-7	
Nickel, Dissolved	<b>6.3</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-02-0	
Potassium, Dissolved	<b>11700</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 15:02	7440-09-7	
Selenium, Dissolved	<b>3.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:02	7440-22-4	
Sodium, Dissolved	<b>4280</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 15:02	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:02	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:02	7440-62-2	
Zinc, Dissolved	<b>945</b> ug/L		25.0	5	05/31/13 11:19	06/06/13 15:51	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>14400</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:52	7429-90-5	
Antimony, Dissolved	<b>0.24J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-36-0	B
Arsenic, Dissolved	<b>136</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-38-2	
Barium, Dissolved	<b>33.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-39-3	
Beryllium, Dissolved	<b>1.7</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:52	7440-41-7	
Cadmium, Dissolved	<b>29.2</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:52	7440-43-9	
Chromium, Dissolved	<b>10.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-47-3	
Cobalt, Dissolved	<b>17.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-48-4	
Copper, Dissolved	<b>122</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-50-8	
Iron, Dissolved	<b>73400</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:52	7439-89-6	
Lead, Dissolved	<b>434</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7439-92-1	
Manganese, Dissolved	<b>7880</b> ug/L		20.0	20	05/28/13 10:35	05/30/13 14:38	7439-96-5	
Molybdenum, Dissolved	<b>3.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7439-98-7	
Nickel, Dissolved	<b>27.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-02-0	
Selenium, Dissolved	<b>6.2</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:52	7440-22-4	
Thallium, Dissolved	<b>0.78J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-28-0	B
Vanadium, Dissolved	<b>13.7</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:52	7440-62-2	
Zinc, Dissolved	<b>6140</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:52	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 13:10	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:11	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:38	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1980</b> umhos/cm		10.0	1			05/24/13 11:22	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Sample: MW-6 SHALLOW_20130515	Lab ID: 60144985012	Collected: 05/15/13 14:50	Received: 05/18/13 08:45	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1270</b> mg/L		6.4	1		05/24/13 11:22		
Salinity (as seawater)	<b>1.0</b> PSU		0.014	1		05/24/13 11:22		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>73.9</b> mg/L		20.0	1		05/27/13 10:53		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/27/13 10:53		
Alkalinity, Total as CaCO3	<b>73.9</b> mg/L		20.0	1		05/27/13 10:53		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1590</b> mg/L		5.0	1		05/20/13 13:41		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>740</b> mg/L		5.0	1		05/21/13 08:26		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/21/13 15:15	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>2.0</b> mg/L		1.0	1		06/02/13 22:38	16887-00-6	
Sulfate	<b>1160</b> mg/L		100	100		06/02/13 22:56	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.16</b> mg/L		0.10	1		05/29/13 10:44		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:21	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.5</b> mg/L		1.0	1		06/05/13 13:46	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

**Sample: DR-8\_20130515      Lab ID: 60144985013      Collected: 05/15/13 11:09      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>234000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:22	7440-70-2	
Magnesium, Dissolved	<b>18900</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:22	7439-95-4	
Potassium, Dissolved	<b>4540</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:22	7440-09-7	
Sodium, Dissolved	<b>11800</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:22	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>976</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 18:44	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-36-0	
Arsenic	<b>1.9</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-38-2	
Barium	<b>20.7</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 18:44	7440-39-3	
Beryllium	<b>1.2</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 18:50	7440-41-7	
Cadmium	<b>16.3</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 18:44	7440-43-9	
Calcium	<b>231000</b> ug/L		400	20	05/31/13 11:22	06/06/13 18:54	7440-70-2	
Chromium	<b>0.90</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-47-3	
Cobalt	<b>2.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-48-4	
Copper	<b>182</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-50-8	
Iron	<b>11300</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 18:44	7439-89-6	
Lead	<b>22.3</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:44	7439-92-1	
Magnesium	<b>19400</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 18:44	7439-95-4	
Manganese	<b>1550</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:50	7439-96-5	
Molybdenum	<b>18.5</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7439-98-7	
Nickel	<b>4.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-02-0	
Potassium	<b>4530</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 18:44	7440-09-7	
Selenium	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7782-49-2	
Silica	<b>17900</b> ug/L		1070	20	05/31/13 11:22	06/06/13 18:54	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 18:44	7440-22-4	
Sodium	<b>12300</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 18:44	7440-23-5	
Thallium	ND ug/L		0.10	1	05/31/13 11:22	06/05/13 18:44	7440-28-0	
Total Hardness by 2340B	<b>656000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 18:54		
Vanadium	<b>0.21</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 18:44	7440-62-2	
Zinc	<b>3110</b> ug/L		100	20	05/31/13 11:22	06/06/13 18:54	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>12.0</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 15:10	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-38-2	
Barium, Dissolved	<b>19.9</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 15:10	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.40	2	05/31/13 11:19	06/06/13 15:56	7440-41-7	D3
Cadmium, Dissolved	<b>14.0</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 15:10	7440-43-9	
Calcium, Dissolved	<b>226000</b> ug/L		400	20	05/31/13 11:19	06/05/13 15:14	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-47-3	
Cobalt, Dissolved	<b>2.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-48-4	
Copper, Dissolved	<b>5.5</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-50-8	
Iron, Dissolved	<b>183</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 15:10	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:10	7439-92-1	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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**Sample: DR-8\_20130515      Lab ID: 60144985013      Collected: 05/15/13 11:09      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>19100</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 15:10	7439-95-4	
Manganese, Dissolved	<b>1550</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 15:14	7439-96-5	
Molybdenum, Dissolved	<b>14.8</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7439-98-7	
Nickel, Dissolved	<b>7.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-02-0	
Potassium, Dissolved	<b>4470</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 15:10	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:10	7440-22-4	
Sodium, Dissolved	<b>12000</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 15:10	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:10	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:10	7440-62-2	
Zinc, Dissolved	<b>2720</b> ug/L		100	20	05/31/13 11:19	06/05/13 15:14	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1210</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:56	7429-90-5	
Antimony, Dissolved	<b>0.41J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-36-0	B
Arsenic, Dissolved	<b>2.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-38-2	
Barium, Dissolved	<b>22.0</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-39-3	
Beryllium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:56	7440-41-7	
Cadmium, Dissolved	<b>15.8</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 13:56	7440-43-9	
Chromium, Dissolved	<b>5.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-47-3	
Cobalt, Dissolved	<b>2.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-48-4	
Copper, Dissolved	<b>216</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-50-8	
Iron, Dissolved	<b>13500</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 13:56	7439-89-6	
Lead, Dissolved	<b>26.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7439-92-1	
Manganese, Dissolved	<b>1600</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7439-96-5	M1
Molybdenum, Dissolved	<b>17.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7439-98-7	
Nickel, Dissolved	<b>5.6</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 13:56	7440-22-4	
Thallium, Dissolved	<b>0.32J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-28-0	B
Vanadium, Dissolved	ND ug/L		1.0	1	05/28/13 10:35	05/30/13 13:56	7440-62-2	
Zinc, Dissolved	<b>3130</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 13:56	7440-66-6	M1
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 13:12	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:13	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:40	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1310</b> umhos/cm		10.0	1		05/24/13 11:23		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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**Sample: DR-8\_20130515      Lab ID: 60144985013      Collected: 05/15/13 11:09      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>840</b> mg/L		6.4	1		05/24/13 11:23		
Salinity (as seawater)	<b>0.65</b> PSU		0.014	1		05/24/13 11:23		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>91.1</b> mg/L		20.0	1		05/27/13 11:07		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/27/13 11:07		
Alkalinity, Total as CaCO3	<b>91.1</b> mg/L		20.0	1		05/27/13 11:07		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>784</b> mg/L		5.0	1		05/20/13 13:41		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>38.0</b> mg/L		5.0	1		05/21/13 08:27		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/21/13 15:15	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/02/13 23:13	16887-00-6	
Sulfate	<b>671</b> mg/L		100	100		06/02/13 23:31	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 10:45		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:21	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/05/13 13:54	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

**Sample: DR-3\_20130515      Lab ID: 60144985014      Collected: 05/15/13 11:10      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>242000</b> ug/L		100	1	05/28/13 10:35	06/03/13 13:25	7440-70-2	
Magnesium, Dissolved	<b>19200</b> ug/L		50.0	1	05/28/13 10:35	06/03/13 13:25	7439-95-4	
Potassium, Dissolved	<b>4600</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:25	7440-09-7	
Sodium, Dissolved	<b>11800</b> ug/L		500	1	05/28/13 10:35	06/03/13 13:25	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>1200</b> ug/L		4.0	1	05/31/13 11:22	06/05/13 19:08	7429-90-5	
Antimony	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-36-0	
Arsenic	<b>2.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-38-2	
Barium	<b>20.5</b> ug/L		0.30	1	05/31/13 11:22	06/05/13 19:08	7440-39-3	
Beryllium	<b>1.4</b> ug/L		1.0	5	05/31/13 11:22	06/06/13 18:59	7440-41-7	
Cadmium	<b>16.5</b> ug/L		0.080	1	05/31/13 11:22	06/05/13 19:08	7440-43-9	
Calcium	<b>228000</b> ug/L		400	20	05/31/13 11:22	06/06/13 19:03	7440-70-2	
Chromium	<b>1.0</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-47-3	
Cobalt	<b>2.6</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-48-4	
Copper	<b>219</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-50-8	
Iron	<b>13400</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 19:08	7439-89-6	
Lead	<b>26.4</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 19:08	7439-92-1	
Magnesium	<b>19200</b> ug/L		5.0	1	05/31/13 11:22	06/05/13 19:08	7439-95-4	
Manganese	<b>1530</b> ug/L		2.5	5	05/31/13 11:22	06/06/13 18:59	7439-96-5	
Molybdenum	<b>19.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7439-98-7	
Nickel	<b>4.2</b> ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-02-0	
Potassium	<b>4520</b> ug/L		20.0	1	05/31/13 11:22	06/05/13 19:08	7440-09-7	
Selenium	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7782-49-2	
Silica	<b>17800</b> ug/L		1070	20	05/31/13 11:22	06/06/13 19:03	7631-86-9	
Silver	ND ug/L		0.50	1	05/31/13 11:22	06/05/13 19:08	7440-22-4	
Sodium	<b>12200</b> ug/L		50.0	1	05/31/13 11:22	06/05/13 19:08	7440-23-5	
Thallium	ND ug/L		0.10	1	05/31/13 11:22	06/05/13 19:08	7440-28-0	
Total Hardness by 2340B	<b>649000</b> ug/L		1420	20	05/31/13 11:22	06/06/13 19:03		
Vanadium	<b>0.26</b> ug/L		0.10	1	05/31/13 11:22	06/05/13 19:08	7440-62-2	
Zinc	<b>3170</b> ug/L		100	20	05/31/13 11:22	06/06/13 19:03	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>210</b> ug/L		4.0	1	05/31/13 11:19	06/05/13 15:19	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-38-2	
Barium, Dissolved	<b>20.4</b> ug/L		0.30	1	05/31/13 11:19	06/05/13 15:19	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.40	2	05/31/13 11:19	06/06/13 16:00	7440-41-7	D3
Cadmium, Dissolved	<b>14.6</b> ug/L		0.080	1	05/31/13 11:19	06/05/13 15:19	7440-43-9	
Calcium, Dissolved	<b>224000</b> ug/L		400	20	05/31/13 11:19	06/05/13 15:23	7440-70-2	
Chromium, Dissolved	<b>0.57</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-47-3	
Cobalt, Dissolved	<b>2.6</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-48-4	
Copper, Dissolved	<b>42.1</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-50-8	
Iron, Dissolved	<b>2430</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 15:19	7439-89-6	
Lead, Dissolved	<b>4.7</b> ug/L		0.10	1	05/31/13 11:19	06/05/13 15:19	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

**Sample: DR-3\_20130515      Lab ID: 60144985014      Collected: 05/15/13 11:10      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>19300</b> ug/L		5.0	1	05/31/13 11:19	06/05/13 15:19	7439-95-4	
Manganese, Dissolved	<b>1540</b> ug/L		10.0	20	05/31/13 11:19	06/05/13 15:23	7439-96-5	
Molybdenum, Dissolved	<b>15.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7439-98-7	
Nickel, Dissolved	<b>6.4</b> ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-02-0	
Potassium, Dissolved	<b>4510</b> ug/L		20.0	1	05/31/13 11:19	06/05/13 15:19	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/31/13 11:19	06/05/13 15:19	7440-22-4	
Sodium, Dissolved	<b>12100</b> ug/L		50.0	1	05/31/13 11:19	06/05/13 15:19	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:19	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	05/31/13 11:19	06/05/13 15:19	7440-62-2	
Zinc, Dissolved	<b>2790</b> ug/L		100	20	05/31/13 11:19	06/05/13 15:23	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1160</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 14:15	7429-90-5	
Antimony, Dissolved	<b>0.42J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-36-0	B
Arsenic, Dissolved	<b>1.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-38-2	
Barium, Dissolved	<b>21.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-39-3	
Beryllium, Dissolved	<b>1.1</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 14:15	7440-41-7	
Cadmium, Dissolved	<b>15.8</b> ug/L		0.50	1	05/28/13 10:35	05/30/13 14:15	7440-43-9	
Chromium, Dissolved	<b>3.3</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-47-3	
Cobalt, Dissolved	<b>2.5</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-48-4	
Copper, Dissolved	<b>206</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-50-8	
Iron, Dissolved	<b>12900</b> ug/L		50.0	1	05/28/13 10:35	05/30/13 14:15	7439-89-6	
Lead, Dissolved	<b>25.9</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7439-92-1	
Manganese, Dissolved	<b>1610</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7439-96-5	
Molybdenum, Dissolved	<b>17.4</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7439-98-7	
Nickel, Dissolved	<b>5.1</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	05/28/13 10:35	05/30/13 14:15	7440-22-4	
Thallium, Dissolved	<b>0.33J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-28-0	B
Vanadium, Dissolved	<b>0.30J</b> ug/L		1.0	1	05/28/13 10:35	05/30/13 14:15	7440-62-2	
Zinc, Dissolved	<b>3140</b> ug/L		10.0	1	05/28/13 10:35	05/30/13 14:15	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	05/30/13 14:59	05/31/13 13:15	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/30/13 07:07	05/30/13 14:15	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	05/24/13 11:05	05/28/13 12:45	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1330</b> umhos/cm		10.0	1			05/24/13 11:27	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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**Sample: DR-3\_20130515      Lab ID: 60144985014      Collected: 05/15/13 11:10      Received: 05/18/13 08:45      Matrix: Water**

Comments: • Total vs Dissolved metals 200.8 were confirmed. Raw samples were analyzed to confirm the original digested reported data.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>852</b> mg/L		6.4	1		05/24/13 11:27		
Salinity (as seawater)	<b>0.66</b> PSU		0.014	1		05/24/13 11:27		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>91.2</b> mg/L		20.0	1		05/27/13 11:10		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/27/13 11:10		
Alkalinity, Total as CaCO3	<b>91.2</b> mg/L		20.0	1		05/27/13 11:10		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1050</b> mg/L		5.0	1		05/20/13 13:42		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>35.0</b> mg/L		5.0	1		05/21/13 08:27		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/21/13 15:15	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/02/13 23:49	16887-00-6	
Sulfate	<b>649</b> mg/L		100	100		06/03/13 00:07	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 10:46		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/22/13 15:24	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/05/13 14:02	7440-44-0	

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July 01, 2013

Mark DeFriez  
Anderson Engineering Company I  
977 W 2100 S.  
Salt Lake City, UT 84119

RE: Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Dear Mark DeFriez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 23, 2013. The results relate only to the within this report conform to the most current version of the TNI standards, BP LaMP Technical Requirements Revision 10.1, and any applicable Quality Assurance Project Plan (QAPP), or Work Plan unless otherwise narrated in the body of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather Wilson

heather.wilson@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MAY 2013 RICO WATER SAMPLING  
 Pace Project No.: 60145328

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### **Minnesota Certification IDs**

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
 A2LA Certification #: 2926.01  
 Alaska Certification #: UST-078  
 Alaska Certification #MN00064  
 Arizona Certification #: AZ-0014  
 Arkansas Certification #: 88-0680  
 California Certification #: 01155CA  
 Colorado Certification #Pace  
 Connecticut Certification #: PH-0256  
 EPA Region 8 Certification #: Pace  
 Florida/NELAP Certification #: E87605  
 Georgia Certification #: 959  
 Hawaii Certification #Pace  
 Idaho Certification #: MN00064  
 Illinois Certification #: 200011  
 Kansas Certification #: E-10167  
 Louisiana Certification #: 03086  
 Louisiana Certification #: LA080009  
 Maine Certification #: 2007029  
 Maryland Certification #: 322  
 Michigan DEQ Certification #: 9909  
 Minnesota Certification #: 027-053-137  
 Mississippi Certification #: Pace

Montana Certification #: MT CERT0092  
 Nebraska Certification #: Pace  
 Nevada Certification #: MN\_00064  
 New Jersey Certification #: MN-002  
 New York Certification #: 11647  
 North Carolina Certification #: 530  
 North Dakota Certification #: R-036  
 North Dakota Certification #: R-036A  
 Ohio VAP Certification #: CL101  
 Oklahoma Certification #: 9507  
 Oregon Certification #: MN200001  
 Oregon Certification #: MN300001  
 Pennsylvania Certification #: 68-00563  
 Puerto Rico Certification  
 Tennessee Certification #: 02818  
 Texas Certification #: T104704192  
 Utah Certification #: MN00064  
 Virginia/DCLS Certification #: 002521  
 Virginia/VELAP Certification #: 460163  
 Washington Certification #: C754  
 West Virginia Certification #: 382  
 Wisconsin Certification #: 999407970

### **Montana Certification IDs**

602 South 25th Street, Billings, MT 59101  
 EPA Region 8 Certification #: 8TMS-Q  
 Idaho Certification #: MT00012  
 Montana Certification #: MT CERT0040

NVLAP Certification #: 101292-0  
 Minnesota Dept of Health Certification #: 030-999-442  
 Washington Department of Ecology #: C993

### **Kansas Certification IDs**

9608 Loiret Boulevard, Lenexa, KS 66219  
 WY STR Certification #: 2456.01  
 Arkansas Certification #: 13-012-0  
 Illinois Certification #: 003097  
 Iowa Certification #: 118  
 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
 Nevada Certification #: KS000212008A  
 Oklahoma Certification #: 9205/9935  
 Texas Certification #: T104704407-13-4  
 Utah Certification #: KS000212013-3  
 Illinois Certification #: 003097

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60145328001	DR-1_20130521	Water	05/21/13 09:45	05/23/13 10:20
60145328002	DR-9_20130521	Water	05/21/13 09:47	05/23/13 10:20
60145328003	GW-5_20130521	Water	05/21/13 10:25	05/23/13 10:20
60145328004	GW-6_20130521	Water	05/21/13 10:57	05/23/13 10:20
60145328005	MW-5 SHALLOW_20130521	Water	05/21/13 11:27	05/23/13 10:20
60145328006	MW-5 DEEP_20130521	Water	05/21/13 11:33	05/23/13 10:20
60145328007	BAH-01_20130521	Water	05/21/13 13:40	05/23/13 10:20

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145328001	DR-1_20130521	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60145328002	DR-9_20130521	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60145328003	GW-5_20130521	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145328004	GW-6_20130521	EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145328005	MW-5 SHALLOW_20130521	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory
60145328006	MW-5 DEEP_20130521	EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
60145328007	BAH-01_20130521	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.7**

**Description:** 200.7 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MPRP/22905

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293461 [MPRP/229 (Lab ID: 1198762)]
  - Potassium, Dissolved
  - Sodium, Dissolved

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39496

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10229566043,60145328003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1442118)
  - Aluminum
  - Calcium
  - Iron
  - Lead
  - Magnesium
  - Manganese
  - Zinc
- MS (Lab ID: 1456747)
  - Aluminum
  - Antimony
  - Calcium
  - Magnesium
  - Manganese

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

---

**Method:** EPA 200.8

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

QC Batch: MPRP/39496

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10229566043,60145328003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Sodium
- Zinc
- MSD (Lab ID: 1456748)
  - Aluminum
  - Antimony
  - Barium
  - Calcium
  - Iron
  - Magnesium
  - Manganese
  - Potassium
  - Sodium
  - Zinc

### Additional Comments:

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

Analyte Comments:

QC Batch: MPRP/39496

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- BAH-01\_20130521 (Lab ID: 60145328007)
  - Silver
  - Barium
  - Antimony

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1442118)
  - Calcium
  - Manganese
  - Lead
  - Zinc
- MS (Lab ID: 1456747)
  - Manganese
- MSD (Lab ID: 1456748)
  - Manganese

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39564

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10229566041,60145328003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1444207)
  - Aluminum, Dissolved
  - Calcium, Dissolved
  - Iron, Dissolved
  - Magnesium, Dissolved
  - Silver, Dissolved
  - Sodium, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 1444209)
  - Aluminum, Dissolved
  - Calcium, Dissolved
  - Magnesium, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

QC Batch: MPRP/39564

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10229566041,60145328003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 1444208)
  - Aluminum, Dissolved
  - Calcium, Dissolved
  - Copper, Dissolved
  - Iron, Dissolved
  - Magnesium, Dissolved
  - Manganese, Dissolved
  - Silver, Dissolved
  - Sodium, Dissolved
  - Zinc, Dissolved

R1: RPD value was outside control limits.

- MSD (Lab ID: 1444208)
  - Aluminum, Dissolved
  - Iron, Dissolved

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

#### Analyte Comments:

QC Batch: MPRP/39564

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1444207)
  - Calcium, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 1444209)
  - Calcium, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 1444208)
  - Calcium, Dissolved
  - Zinc, Dissolved

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MPRP/22907

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293463 [MPRP/229 (Lab ID: 1198772)]
  - Lead, Dissolved

QC Batch: MPRP/22960

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293824 [MPRP/229 (Lab ID: 1200114)]
  - Chromium, Dissolved
  - Zinc, Dissolved

QC Batch: MPRP/23023

B: Analyte was detected in the associated method blank.

- BLANK for HBN 294479 [MPRP/230 (Lab ID: 1202680)]
  - Chromium, Dissolved

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

QC Batch: MPRP/22907

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145328003,60145328004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1198774)
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 1198776)
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 1198775)
  - Copper, Dissolved
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved

### Additional Comments:

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** EPA 245.1

**Description:** 245.1 Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 245.1**

**Description:** 245.1 Mercury, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 245.1**

**Description:** 245.1 Potentially Diss Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **SM 2510B**

**Description:** 2510B Specific Conductance

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** Calculated

**Description:** Salinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for Calculated. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **SM 2320B**

**Description:** 2320B Alkalinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **SM 2540C**

**Description:** 2540C Total Dissolved Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

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**Method:** **SM 2540D**

**Description:** 2540D Total Suspended Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **SM 4500-S-2 D**

**Description:** 4500S2D Sulfide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

**General Information:**

7 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **EPA 300.0**

**Description:** 300.0 IC Anions 28 Days

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** EPA 353.2

**Description:** 353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/24877

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60144985001,60145571002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1195323)
- Nitrogen, NO<sub>2</sub> plus NO<sub>3</sub>

QC Batch: WETA/24878

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145328002,60145328004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1195332)
- Nitrogen, NO<sub>2</sub> plus NO<sub>3</sub>

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

---

**Method:** **SM 4500-CN-E**

**Description:** 4500CNE Cyanide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** July 01, 2013

### General Information:

7 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

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**Method:** SM 5310C  
**Description:** 5310C TOC  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** July 01, 2013

### General Information:

7 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

All reported results confirmed for total vs. diss metals

- DR-1\_20130521 (Lab ID: 60145328001)
- DR-9\_20130521 (Lab ID: 60145328002)
- BAH-01\_20130521 (Lab ID: 60145328007)

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-1\_20130521      Lab ID: 60145328001      Collected: 05/21/13 09:45      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>17500</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:00	7440-70-2	
Magnesium, Dissolved	<b>2670</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:00	7439-95-4	
Potassium, Dissolved	<b>462J</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:00	7440-09-7	B
Sodium, Dissolved	<b>1470</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:00	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>294</b> ug/L		4.0	1	06/14/13 05:51	06/14/13 12:18	7429-90-5	
Antimony	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-38-2	
Barium	<b>40.2</b> ug/L		0.30	1	06/14/13 05:51	06/14/13 12:18	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/14/13 05:51	06/14/13 12:18	7440-41-7	
Cadmium	<b>0.26</b> ug/L		0.080	1	06/14/13 05:51	06/14/13 12:18	7440-43-9	
Calcium	<b>18600</b> ug/L		20.0	1	06/14/13 05:51	06/14/13 12:18	7440-70-2	
Chromium	<b>1.2</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-48-4	
Copper	<b>10.5</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-50-8	
Iron	<b>438</b> ug/L		50.0	1	06/14/13 05:51	06/14/13 12:18	7439-89-6	
Lead	<b>2.7</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 12:18	7439-92-1	
Magnesium	<b>2910</b> ug/L		5.0	1	06/14/13 05:51	06/14/13 12:18	7439-95-4	
Manganese	<b>17.7</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7439-96-5	
Molybdenum	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7439-98-7	
Nickel	<b>0.64</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-02-0	
Potassium	<b>500</b> ug/L		20.0	1	06/14/13 05:51	06/14/13 12:18	7440-09-7	
Selenium	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7782-49-2	
Silica	<b>5680</b> ug/L		535	10	06/14/13 05:51	06/14/13 12:23	7631-86-9	
Silver	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:18	7440-22-4	
Sodium	<b>1180</b> ug/L		50.0	1	06/14/13 05:51	06/14/13 12:18	7440-23-5	
Thallium	ND ug/L		0.10	1	06/14/13 05:51	06/14/13 12:18	7440-28-0	
Total Hardness by 2340B	<b>58300</b> ug/L		71.0	1	06/14/13 05:51	06/14/13 12:18		
Vanadium	<b>0.56</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 12:18	7440-62-2	
Zinc	<b>24.6</b> ug/L		5.0	1	06/14/13 05:51	06/14/13 12:18	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>41.3</b> ug/L		4.0	1	06/02/13 13:15	06/13/13 14:28	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-38-2	
Barium, Dissolved	<b>37.9</b> ug/L		0.30	1	06/02/13 13:15	06/13/13 14:28	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/02/13 13:15	06/13/13 14:28	7440-41-7	
Cadmium, Dissolved	<b>0.087</b> ug/L		0.080	1	06/02/13 13:15	06/13/13 14:28	7440-43-9	
Calcium, Dissolved	<b>19000</b> ug/L		20.0	1	06/02/13 13:15	06/13/13 14:28	7440-70-2	
Chromium, Dissolved	<b>0.63</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-48-4	
Copper, Dissolved	<b>4.2</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-50-8	
Iron, Dissolved	<b>120</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:28	7439-89-6	
Lead, Dissolved	<b>0.81</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:28	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-1\_20130521      Lab ID: 60145328001      Collected: 05/21/13 09:45      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>2900</b> ug/L		5.0	1	06/02/13 13:15	06/13/13 14:28	7439-95-4	
Manganese, Dissolved	<b>7.9</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7439-96-5	
Molybdenum, Dissolved	<b>0.51</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7439-98-7	
Nickel, Dissolved	<b>3.2</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-02-0	
Potassium, Dissolved	<b>458</b> ug/L		20.0	1	06/02/13 13:15	06/13/13 14:28	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:28	7440-22-4	
Sodium, Dissolved	<b>1230</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:28	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/13/13 14:28	7440-28-0	
Vanadium, Dissolved	<b>0.17</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:28	7440-62-2	
Zinc, Dissolved	<b>11.1</b> ug/L		5.0	1	06/02/13 13:15	06/13/13 14:28	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>88.9</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:37	7429-90-5	
Antimony, Dissolved	<b>0.039J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-36-0	
Arsenic, Dissolved	<b>0.26J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-38-2	
Barium, Dissolved	<b>40.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:37	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:37	7440-43-9	
Chromium, Dissolved	<b>0.53J</b> ug/L		1.0	1	06/11/13 13:30	06/12/13 10:58	7440-47-3	B
Cobalt, Dissolved	<b>0.096J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-48-4	
Copper, Dissolved	<b>1.3</b> ug/L		1.0	1	06/11/13 13:30	06/12/13 10:58	7440-50-8	
Iron, Dissolved	<b>119</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:37	7439-89-6	
Lead, Dissolved	<b>0.26J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7439-92-1	B
Manganese, Dissolved	<b>7.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7439-96-5	
Molybdenum, Dissolved	<b>0.64J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7439-98-7	
Nickel, Dissolved	<b>0.55J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:37	7440-22-4	
Thallium, Dissolved	<b>0.067J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-28-0	
Vanadium, Dissolved	<b>0.28J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:37	7440-62-2	
Zinc, Dissolved	<b>4.8J</b> ug/L		10.0	1	06/11/13 13:30	06/12/13 10:58	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:14	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:13	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:39	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>118</b> umhos/cm		10.0	1			05/28/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-1\_20130521      Lab ID: 60145328001      Collected: 05/21/13 09:45      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>75.4</b> mg/L		6.4	1		05/28/13 13:12		
Salinity (as seawater)	ND PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>42.1</b> mg/L		20.0	1		05/30/13 10:45		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		05/30/13 10:45		
Alkalinity, Total as CaCO <sub>3</sub>	<b>42.1</b> mg/L		20.0	1		05/30/13 10:45		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>81.0</b> mg/L		5.0	1		05/24/13 13:02		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>17.0</b> mg/L		5.0	1		05/24/13 11:00		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/24/13 14:44	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/06/13 09:45	16887-00-6	
Sulfate	<b>12.3</b> mg/L		1.0	1		06/06/13 09:45	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	<b>0.11</b> mg/L		0.10	1		05/29/13 10:48		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:27	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>6.3</b> mg/L		1.0	1		06/07/13 11:53	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-9\_20130521      Lab ID: 60145328002      Collected: 05/21/13 09:47      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>17600</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:13	7440-70-2	
Magnesium, Dissolved	<b>2690</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:13	7439-95-4	
Potassium, Dissolved	<b>448J</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:13	7440-09-7	B
Sodium, Dissolved	<b>1410</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:13	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>255</b> ug/L		4.0	1	06/14/13 05:51	06/14/13 12:28	7429-90-5	
Antimony	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-38-2	
Barium	<b>38.9</b> ug/L		0.30	1	06/14/13 05:51	06/14/13 12:28	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/14/13 05:51	06/14/13 12:28	7440-41-7	
Cadmium	ND ug/L		0.080	1	06/14/13 05:51	06/14/13 12:28	7440-43-9	
Calcium	<b>17600</b> ug/L		20.0	1	06/14/13 05:51	06/14/13 12:28	7440-70-2	
Chromium	<b>0.96</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-48-4	
Copper	<b>4.3</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-50-8	
Iron	<b>275</b> ug/L		50.0	1	06/14/13 05:51	06/14/13 12:28	7439-89-6	
Lead	<b>0.77</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 12:28	7439-92-1	
Magnesium	<b>2780</b> ug/L		5.0	1	06/14/13 05:51	06/14/13 12:28	7439-95-4	
Manganese	<b>10.4</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7439-96-5	
Molybdenum	<b>0.51</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7439-98-7	
Nickel	<b>0.53</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-02-0	
Potassium	<b>488</b> ug/L		20.0	1	06/14/13 05:51	06/14/13 12:28	7440-09-7	
Selenium	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7782-49-2	
Silica	<b>5260</b> ug/L		535	10	06/14/13 05:51	06/14/13 12:33	7631-86-9	
Silver	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 12:28	7440-22-4	
Sodium	<b>1120</b> ug/L		50.0	1	06/14/13 05:51	06/14/13 12:28	7440-23-5	
Thallium	ND ug/L		0.10	1	06/14/13 05:51	06/14/13 12:28	7440-28-0	
Total Hardness by 2340B	<b>55400</b> ug/L		71.0	1	06/14/13 05:51	06/14/13 12:28		
Vanadium	<b>0.61</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 12:28	7440-62-2	
Zinc	<b>7.3</b> ug/L		5.0	1	06/14/13 05:51	06/14/13 12:28	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>64.5</b> ug/L		4.0	1	06/02/13 13:15	06/13/13 14:33	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-38-2	
Barium, Dissolved	<b>38.5</b> ug/L		0.30	1	06/02/13 13:15	06/13/13 14:33	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/02/13 13:15	06/13/13 14:33	7440-41-7	
Cadmium, Dissolved	<b>0.34</b> ug/L		0.080	1	06/02/13 13:15	06/13/13 14:33	7440-43-9	
Calcium, Dissolved	<b>19200</b> ug/L		20.0	1	06/02/13 13:15	06/13/13 14:33	7440-70-2	
Chromium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-48-4	
Copper, Dissolved	<b>11.8</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-50-8	
Iron, Dissolved	<b>423</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:33	7439-89-6	
Lead, Dissolved	<b>3.3</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:33	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-9\_20130521      Lab ID: 60145328002      Collected: 05/21/13 09:47      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>2920</b> ug/L		5.0	1	06/02/13 13:15	06/13/13 14:33	7439-95-4	
Manganese, Dissolved	<b>14.8</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7439-96-5	
Molybdenum, Dissolved	<b>0.62</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7439-98-7	
Nickel, Dissolved	<b>0.71</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-02-0	
Potassium, Dissolved	<b>454</b> ug/L		20.0	1	06/02/13 13:15	06/13/13 14:33	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:33	7440-22-4	
Sodium, Dissolved	<b>1210</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:33	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/13/13 14:33	7440-28-0	
Vanadium, Dissolved	<b>0.18</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:33	7440-62-2	
Zinc, Dissolved	<b>31.2</b> ug/L		5.0	1	06/02/13 13:15	06/13/13 14:33	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>98.7</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:41	7429-90-5	
Antimony, Dissolved	<b>0.035J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-36-0	
Arsenic, Dissolved	<b>0.29J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-38-2	
Barium, Dissolved	<b>40.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:41	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:41	7440-43-9	
Chromium, Dissolved	<b>0.78J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 15:09	7440-47-3	B
Cobalt, Dissolved	<b>0.11J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-48-4	
Copper, Dissolved	<b>1.7</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 15:09	7440-50-8	
Iron, Dissolved	<b>143</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:41	7439-89-6	
Lead, Dissolved	<b>0.34J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7439-92-1	B
Manganese, Dissolved	<b>9.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7439-96-5	
Molybdenum, Dissolved	<b>0.38J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7439-98-7	
Nickel, Dissolved	<b>0.45J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 09:41	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-28-0	
Vanadium, Dissolved	<b>0.45J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:41	7440-62-2	
Zinc, Dissolved	<b>3.5J</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 15:09	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:21	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:20	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:45	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>117</b> umhos/cm		10.0	1			05/28/13 10:46	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: DR-9\_20130521      Lab ID: 60145328002      Collected: 05/21/13 09:47      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	75.1	mg/L	6.4	1		05/28/13 13:12		
Salinity (as seawater)	0.059	PSU	0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	40.0	mg/L	20.0	1		05/30/13 10:57		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		05/30/13 10:57		
Alkalinity, Total as CaCO <sub>3</sub>	40.0	mg/L	20.0	1		05/30/13 10:57		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	65.0	mg/L	5.0	1		05/24/13 13:03		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	13.0	mg/L	5.0	1		05/24/13 11:01		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/24/13 14:46	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/06/13 10:38	16887-00-6	
Sulfate	12.3	mg/L	1.0	1		06/06/13 10:38	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND	mg/L	0.10	1		05/29/13 10:50		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:31	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	5.7	mg/L	1.0	1		06/07/13 13:58	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-5_20130521	Lab ID: 60145328003	Collected: 05/21/13 10:25	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>529000</b> ug/L		200	2	06/04/13 13:30	06/05/13 14:45	7440-70-2	
Magnesium, Dissolved	<b>93600</b> ug/L		100	2	06/04/13 13:30	06/05/13 14:45	7439-95-4	
Potassium, Dissolved	<b>13100</b> ug/L		1000	2	06/04/13 13:30	06/05/13 14:45	7440-09-7	
Sodium, Dissolved	<b>15800</b> ug/L		1000	2	06/04/13 13:30	06/05/13 14:45	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>13100</b> ug/L		20.0	5	06/14/13 05:51	06/14/13 12:38	7429-90-5	M1
Antimony	<b>3.5</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-36-0	
Arsenic	<b>284</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-38-2	
Barium	<b>115</b> ug/L		1.5	5	06/14/13 05:51	06/14/13 12:38	7440-39-3	
Beryllium	<b>1.5</b> ug/L		1.0	5	06/14/13 05:51	06/14/13 12:38	7440-41-7	
Cadmium	<b>123</b> ug/L		0.40	5	06/14/13 05:51	06/14/13 12:38	7440-43-9	
Calcium	<b>605000</b> ug/L		4000	200	06/14/13 05:51	06/14/13 12:51	7440-70-2	M1
Chromium	<b>22.4</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-47-3	
Cobalt	<b>42.5</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-48-4	
Copper	<b>1740</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-50-8	
Iron	<b>79400</b> ug/L		250	5	06/14/13 05:51	06/14/13 12:38	7439-89-6	M1
Lead	<b>17200</b> ug/L		20.0	200	06/14/13 05:51	06/14/13 12:51	7439-92-1	M1
Magnesium	<b>53700</b> ug/L		25.0	5	06/14/13 05:51	06/14/13 12:38	7439-95-4	M1
Manganese	<b>10400</b> ug/L		100	200	06/14/13 05:51	06/14/13 12:51	7439-96-5	M1
Molybdenum	<b>26.0</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7439-98-7	
Nickel	<b>57.6</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-02-0	
Potassium	<b>8240</b> ug/L		100	5	06/14/13 05:51	06/14/13 12:38	7440-09-7	
Selenium	<b>3.5</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7782-49-2	
Silica	<b>81700</b> ug/L		1070	20	06/14/13 05:51	06/14/13 12:44	7631-86-9	
Silver	<b>72.8</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 12:38	7440-22-4	
Sodium	<b>7360</b> ug/L		250	5	06/14/13 05:51	06/14/13 12:38	7440-23-5	
Thallium	<b>2.2</b> ug/L		0.50	5	06/14/13 05:51	06/14/13 12:38	7440-28-0	
Total Hardness by 2340B	<b>1730000</b> ug/L		14200	200	06/14/13 05:51	06/14/13 12:51		
Vanadium	<b>21.3</b> ug/L		0.50	5	06/14/13 05:51	06/14/13 12:38	7440-62-2	
Zinc	<b>36500</b> ug/L		1000	200	06/14/13 05:51	06/14/13 12:51	7440-66-6	M1
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>147</b> ug/L		4.0	1	06/02/13 13:15	06/13/13 14:38	7429-90-5	M1
Antimony, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-36-0	
Arsenic, Dissolved	<b>56.2</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-38-2	
Barium, Dissolved	<b>17.9</b> ug/L		0.30	1	06/02/13 13:15	06/13/13 14:38	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/02/13 13:15	06/13/13 14:38	7440-41-7	
Cadmium, Dissolved	<b>1.7</b> ug/L		0.080	1	06/02/13 13:15	06/13/13 14:38	7440-43-9	
Calcium, Dissolved	<b>614000</b> ug/L		1000	50	06/02/13 13:15	06/13/13 14:44	7440-70-2	M1
Chromium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-47-3	
Cobalt, Dissolved	<b>11.1</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-48-4	
Copper, Dissolved	<b>24.5</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-50-8	
Iron, Dissolved	<b>8180</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:38	7439-89-6	
Lead, Dissolved	<b>191</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:38	7439-92-1	
Magnesium, Dissolved	<b>46200</b> ug/L		100	20	06/02/13 13:15	06/12/13 21:12	7439-95-4	M1

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-5_20130521	Lab ID: 60145328003	Collected: 05/21/13 10:25	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>6720</b> ug/L		10.0	20	06/02/13 13:15	06/12/13 21:12	7439-96-5	M1
Molybdenum, Dissolved	<b>9.6</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7439-98-7	
Nickel, Dissolved	<b>15.9</b> ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-02-0	
Potassium, Dissolved	<b>6140</b> ug/L		20.0	1	06/02/13 13:15	06/13/13 14:38	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/13/13 14:38	7440-22-4	
Sodium, Dissolved	<b>7510</b> ug/L		50.0	1	06/02/13 13:15	06/13/13 14:38	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/13/13 14:38	7440-28-0	
Vanadium, Dissolved	<b>0.21</b> ug/L		0.10	1	06/02/13 13:15	06/13/13 14:38	7440-62-2	
Zinc, Dissolved	<b>11600</b> ug/L		250	50	06/02/13 13:15	06/13/13 14:44	7440-66-6	M1
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>7240</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:45	7429-90-5	
Antimony, Dissolved	<b>1.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-36-0	
Arsenic, Dissolved	<b>191</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-38-2	
Barium, Dissolved	<b>14.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-39-3	
Beryllium, Dissolved	<b>1.1</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 09:45	7440-41-7	
Cadmium, Dissolved	<b>90.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 09:45	7440-43-9	
Chromium, Dissolved	<b>10</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-47-3	
Cobalt, Dissolved	<b>25.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-48-4	
Copper, Dissolved	<b>930</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-50-8	M1
Iron, Dissolved	<b>40200</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 09:45	7439-89-6	M1
Lead, Dissolved	<b>4800</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7439-92-1	M1
Manganese, Dissolved	<b>8580</b> ug/L		100	100	06/04/13 13:30	06/05/13 11:29	7439-96-5	M1
Molybdenum, Dissolved	<b>8.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7439-98-7	
Nickel, Dissolved	<b>36.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-02-0	
Selenium, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7782-49-2	
Silver, Dissolved	<b>0.54</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 09:45	7440-22-4	
Thallium, Dissolved	<b>0.92J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-28-0	
Vanadium, Dissolved	<b>12.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 09:45	7440-62-2	
Zinc, Dissolved	<b>29700</b> ug/L		1000	100	06/04/13 13:30	06/05/13 11:29	7440-66-6	M1
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:24	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:23	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:48	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>2340</b> umhos/cm		10.0	1			05/28/13 10:49	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1490</b> mg/L		6.4	1			05/28/13 13:12	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-5_20130521	Lab ID: 60145328003	Collected: 05/21/13 10:25	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>1.2</b> PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>210</b> mg/L		20.0	1		05/30/13 11:01		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/30/13 11:01		
Alkalinity, Total as CaCO3	<b>210</b> mg/L		20.0	1		05/30/13 11:01		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>846</b> mg/L		5.0	1		05/24/13 13:03		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>271</b> mg/L		5.0	1		05/24/13 11:02		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	<b>0.87</b> mg/L		0.050	1		05/24/13 14:46 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.3</b> mg/L		1.0	1		06/06/13 11:31 16887-00-6		
Sulfate	<b>1690</b> mg/L		200	200		06/06/13 11:49 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.39</b> mg/L		0.10	1		05/29/13 10:52		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:32 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.6</b> mg/L		1.0	1		06/07/13 14:07 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-6_20130521	Lab ID: 60145328004	Collected: 05/21/13 10:57	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>336000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:22	7440-70-2	
Magnesium, Dissolved	<b>48800</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:22	7439-95-4	
Potassium, Dissolved	<b>10100</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:22	7440-09-7	
Sodium, Dissolved	<b>7130</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:22	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>27400</b> ug/L		20.0	5	06/14/13 05:51	06/14/13 13:22	7429-90-5	
Antimony	<b>4.9</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-36-0	
Arsenic	<b>296</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-38-2	
Barium	<b>216</b> ug/L		1.5	5	06/14/13 05:51	06/14/13 13:22	7440-39-3	
Beryllium	<b>3.8</b> ug/L		1.0	5	06/14/13 05:51	06/14/13 13:22	7440-41-7	
Cadmium	<b>92.6</b> ug/L		0.40	5	06/14/13 05:51	06/14/13 13:22	7440-43-9	
Calcium	<b>380000</b> ug/L		400	20	06/14/13 05:51	06/14/13 13:28	7440-70-2	
Chromium	<b>35.0</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-47-3	
Cobalt	<b>36.2</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-48-4	
Copper	<b>1040</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-50-8	
Iron	<b>145000</b> ug/L		1000	20	06/14/13 05:51	06/14/13 13:28	7439-89-6	
Lead	<b>14900</b> ug/L		20.0	200	06/14/13 05:51	06/14/13 13:35	7439-92-1	
Magnesium	<b>61100</b> ug/L		25.0	5	06/14/13 05:51	06/14/13 13:22	7439-95-4	
Manganese	<b>11800</b> ug/L		100	200	06/14/13 05:51	06/14/13 13:35	7439-96-5	
Molybdenum	<b>13.4</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7439-98-7	
Nickel	<b>48.8</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-02-0	
Potassium	<b>14000</b> ug/L		100	5	06/14/13 05:51	06/14/13 13:22	7440-09-7	
Selenium	<b>7.3</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7782-49-2	
Silica	<b>112000</b> ug/L		10700	200	06/14/13 05:51	06/14/13 13:35	7631-86-9	
Silver	<b>37.6</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:22	7440-22-4	
Sodium	<b>6960</b> ug/L		250	5	06/14/13 05:51	06/14/13 13:22	7440-23-5	
Thallium	<b>2.2</b> ug/L		0.50	5	06/14/13 05:51	06/14/13 13:22	7440-28-0	
Total Hardness by 2340B	<b>1200000</b> ug/L		1420	20	06/14/13 05:51	06/14/13 13:28		
Vanadium	<b>55.0</b> ug/L		0.50	5	06/14/13 05:51	06/14/13 13:22	7440-62-2	
Zinc	<b>24300</b> ug/L		1000	200	06/14/13 05:51	06/14/13 13:35	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>231</b> ug/L		4.0	1	06/02/13 13:15	06/14/13 15:38	7429-90-5	
Antimony, Dissolved	<b>ND</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-36-0	
Arsenic, Dissolved	<b>71.0</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-38-2	
Barium, Dissolved	<b>17.5</b> ug/L		0.30	1	06/02/13 13:15	06/14/13 15:38	7440-39-3	
Beryllium, Dissolved	<b>0.49</b> ug/L		0.20	1	06/02/13 13:15	06/14/13 15:38	7440-41-7	
Cadmium, Dissolved	<b>0.69</b> ug/L		0.080	1	06/02/13 13:15	06/14/13 15:38	7440-43-9	
Calcium, Dissolved	<b>376000</b> ug/L		400	20	06/02/13 13:15	06/12/13 21:29	7440-70-2	
Chromium, Dissolved	<b>ND</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-47-3	
Cobalt, Dissolved	<b>3.1</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-48-4	
Copper, Dissolved	<b>9.5</b> ug/L		0.50	1	06/02/13 13:15	06/12/13 21:23	7440-50-8	
Iron, Dissolved	<b>34600</b> ug/L		250	5	06/02/13 13:15	06/13/13 14:49	7439-89-6	
Lead, Dissolved	<b>90.4</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:38	7439-92-1	
Magnesium, Dissolved	<b>45900</b> ug/L		25.0	5	06/02/13 13:15	06/13/13 14:49	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-6_20130521	Lab ID: 60145328004	Collected: 05/21/13 10:57	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>6940</b> ug/L		10.0	20	06/02/13 13:15	06/12/13 21:29	7439-96-5	
Molybdenum, Dissolved	<b>6.9</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7439-98-7	
Nickel, Dissolved	<b>6.0</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-02-0	
Potassium, Dissolved	<b>9140</b> ug/L		20.0	1	06/02/13 13:15	06/14/13 15:38	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:38	7440-22-4	
Sodium, Dissolved	<b>6800</b> ug/L		50.0	1	06/02/13 13:15	06/14/13 15:38	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/14/13 15:38	7440-28-0	
Vanadium, Dissolved	<b>0.42</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:38	7440-62-2	
Zinc, Dissolved	<b>9820</b> ug/L		250	50	06/02/13 13:15	06/14/13 15:43	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>14400</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:02	7429-90-5	
Antimony, Dissolved	<b>1.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-36-0	
Arsenic, Dissolved	<b>228</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-38-2	
Barium, Dissolved	<b>22.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-39-3	
Beryllium, Dissolved	<b>3.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:02	7440-41-7	
Cadmium, Dissolved	<b>67.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:02	7440-43-9	
Chromium, Dissolved	<b>21.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-47-3	
Cobalt, Dissolved	<b>23.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-48-4	
Copper, Dissolved	<b>689</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-50-8	
Iron, Dissolved	<b>95000</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:02	7439-89-6	M1
Lead, Dissolved	<b>6560</b> ug/L		100	100	06/04/13 13:30	06/05/13 11:45	7439-92-1	M1
Manganese, Dissolved	<b>11100</b> ug/L		100	100	06/04/13 13:30	06/05/13 11:45	7439-96-5	M1
Molybdenum, Dissolved	<b>3.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7439-98-7	
Nickel, Dissolved	<b>32.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-02-0	
Selenium, Dissolved	<b>2.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7782-49-2	
Silver, Dissolved	<b>0.16J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:02	7440-22-4	
Thallium, Dissolved	<b>1.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-28-0	
Vanadium, Dissolved	<b>36.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:02	7440-62-2	
Zinc, Dissolved	<b>19400</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:02	7440-66-6	M1
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	<b>0.26</b> ug/L		0.20	1	06/04/13 15:50	06/05/13 16:26	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:30	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:50	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1820</b> umhos/cm		10.0	1			05/28/13 10:54	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1170</b> mg/L		6.4	1			05/28/13 13:12	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: GW-6_20130521	Lab ID: 60145328004	Collected: 05/21/13 10:57	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.92</b> PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>190</b> mg/L		20.0	1		05/30/13 11:09		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/30/13 11:09		
Alkalinity, Total as CaCO3	<b>190</b> mg/L		20.0	1		05/30/13 11:09		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1250</b> mg/L		5.0	1		05/24/13 13:04		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>446</b> mg/L		5.0	1		05/24/13 11:04		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/24/13 14:47 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.3</b> mg/L		1.0	1		06/06/13 12:07 16887-00-6		
Sulfate	<b>986</b> mg/L		100	100		06/06/13 12:24 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.16</b> mg/L		0.10	1		05/29/13 10:56 M1		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:32 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.8</b> mg/L		1.0	1		06/07/13 14:17 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: MW-5 SHALLOW_20130521	Lab ID: 60145328005	Collected: 05/21/13 11:27	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>370000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:25	7440-70-2	
Magnesium, Dissolved	<b>112000</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:25	7439-95-4	
Potassium, Dissolved	<b>2020</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:25	7440-09-7	
Sodium, Dissolved	<b>15600</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:25	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>21600</b> ug/L		4.0	1	06/14/13 05:51	06/19/13 08:32	7429-90-5	
Antimony	<b>0.97</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-36-0	
Arsenic	<b>265</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-38-2	
Barium	<b>35.8</b> ug/L		0.30	1	06/14/13 05:51	06/19/13 08:32	7440-39-3	
Beryllium	<b>5.8</b> ug/L		1.0	5	06/14/13 05:51	06/14/13 13:41	7440-41-7	
Cadmium	<b>186</b> ug/L		0.080	1	06/14/13 05:51	06/19/13 08:32	7440-43-9	
Calcium	<b>466000</b> ug/L		1000	50	06/14/13 05:51	06/14/13 13:48	7440-70-2	
Chromium	ND ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-47-3	
Cobalt	<b>75.4</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-48-4	
Copper	<b>281</b> ug/L		2.5	5	06/14/13 05:51	06/14/13 13:41	7440-50-8	
Iron	<b>462000</b> ug/L		2500	50	06/14/13 05:51	06/14/13 13:48	7439-89-6	
Lead	<b>2060</b> ug/L		0.50	5	06/14/13 05:51	06/14/13 13:41	7439-92-1	
Magnesium	<b>137000</b> ug/L		250	50	06/14/13 05:51	06/14/13 13:48	7439-95-4	
Manganese	<b>25700</b> ug/L		250	500	06/14/13 05:51	06/14/13 13:54	7439-96-5	
Molybdenum	<b>1.9</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7439-98-7	
Nickel	<b>136</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-02-0	
Potassium	<b>2700</b> ug/L		20.0	1	06/14/13 05:51	06/19/13 08:32	7440-09-7	
Selenium	<b>4.4</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7782-49-2	
Silica	<b>70400</b> ug/L		2680	50	06/14/13 05:51	06/14/13 13:48	7631-86-9	
Silver	<b>6.6</b> ug/L		0.50	1	06/14/13 05:51	06/19/13 08:32	7440-22-4	
Sodium	<b>16300</b> ug/L		50.0	1	06/14/13 05:51	06/19/13 08:32	7440-23-5	
Thallium	<b>0.57</b> ug/L		0.10	1	06/14/13 05:51	06/19/13 08:32	7440-28-0	
Total Hardness by 2340B	<b>1730000</b> ug/L		3550	50	06/14/13 05:51	06/14/13 13:48		
Vanadium	<b>4.5</b> ug/L		0.10	1	06/14/13 05:51	06/19/13 08:32	7440-62-2	
Zinc	<b>138000</b> ug/L		2500	500	06/14/13 05:51	06/14/13 13:54	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>20800</b> ug/L		4.0	1	06/02/13 13:15	06/14/13 15:48	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-36-0	
Arsenic, Dissolved	<b>231</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-38-2	
Barium, Dissolved	<b>8.2</b> ug/L		0.30	1	06/02/13 13:15	06/14/13 15:48	7440-39-3	
Beryllium, Dissolved	<b>4.9</b> ug/L		0.20	1	06/02/13 13:15	06/14/13 15:48	7440-41-7	
Cadmium, Dissolved	<b>180</b> ug/L		0.080	1	06/02/13 13:15	06/14/13 15:48	7440-43-9	
Calcium, Dissolved	<b>504000</b> ug/L		10000	500	06/02/13 13:15	06/13/13 14:59	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-47-3	
Cobalt, Dissolved	<b>79.8</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-48-4	
Copper, Dissolved	<b>4.5</b> ug/L		0.50	1	06/02/13 13:15	06/12/13 21:50	7440-50-8	
Iron, Dissolved	<b>454000</b> ug/L		25000	500	06/02/13 13:15	06/13/13 14:59	7439-89-6	
Lead, Dissolved	<b>629</b> ug/L		2.0	20	06/02/13 13:15	06/13/13 14:54	7439-92-1	
Magnesium, Dissolved	<b>139000</b> ug/L		100	20	06/02/13 13:15	06/13/13 14:54	7439-95-4	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: MW-5 SHALLOW_20130521	Lab ID: 60145328005	Collected: 05/21/13 11:27	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>26100</b> ug/L		250	500	06/02/13 13:15	06/13/13 14:59	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7439-98-7	
Nickel, Dissolved	<b>144</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-02-0	
Potassium, Dissolved	<b>2280</b> ug/L		20.0	1	06/02/13 13:15	06/14/13 15:48	7440-09-7	
Selenium, Dissolved	<b>3.5</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:48	7440-22-4	
Sodium, Dissolved	<b>16500</b> ug/L		50.0	1	06/02/13 13:15	06/14/13 15:48	7440-23-5	
Thallium, Dissolved	<b>0.38</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:48	7440-28-0	
Vanadium, Dissolved	<b>1.4</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:48	7440-62-2	
Zinc, Dissolved	<b>144000</b> ug/L		2500	500	06/02/13 13:15	06/13/13 14:59	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>19500</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:18	7429-90-5	
Antimony, Dissolved	<b>0.68J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-36-0	
Arsenic, Dissolved	<b>297</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-38-2	
Barium, Dissolved	<b>13.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-39-3	
Beryllium, Dissolved	<b>4.5</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:18	7440-41-7	
Cadmium, Dissolved	<b>213</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:18	7440-43-9	
Chromium, Dissolved	<b>4.9</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 15:21	7440-47-3	
Cobalt, Dissolved	<b>84.5</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-48-4	
Copper, Dissolved	<b>244</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-50-8	
Iron, Dissolved	<b>449000</b> ug/L		5000	100	06/04/13 13:30	06/05/13 12:06	7439-89-6	
Lead, Dissolved	<b>2110</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7439-92-1	
Manganese, Dissolved	<b>25000</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:06	7439-96-5	
Molybdenum, Dissolved	<b>1.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7439-98-7	
Nickel, Dissolved	<b>161</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-02-0	
Selenium, Dissolved	<b>5.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7782-49-2	
Silver, Dissolved	<b>0.48J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:18	7440-22-4	
Thallium, Dissolved	<b>0.55J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-28-0	
Vanadium, Dissolved	<b>3.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:18	7440-62-2	
Zinc, Dissolved	<b>134000</b> ug/L		1000	100	06/04/13 13:30	06/05/13 12:06	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:29	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:33	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:52	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>3780</b> umhos/cm		10.0	1			05/28/13 10:57	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Sample: MW-5 SHALLOW_20130521	Lab ID: 60145328005	Collected: 05/21/13 11:27	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>2420</b> mg/L		6.4	1		05/28/13 13:12		
Salinity (as seawater)	<b>2.0</b> PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	20.0	1		05/30/13 11:10		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/30/13 11:10		
Alkalinity, Total as CaCO3	ND	mg/L	20.0	1		05/30/13 11:10		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>2900</b> mg/L		5.0	1		05/24/13 13:05		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>97.0</b> mg/L		5.0	1		05/24/13 11:05		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/24/13 14:47	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>3.8</b> mg/L		1.0	1		06/06/13 12:42	16887-00-6	
Sulfate	<b>3860</b> mg/L		500	500		06/07/13 09:45	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 10:57		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:35	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.8</b> mg/L		1.0	1		06/07/13 14:26	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: MW-5 DEEP_20130521	Lab ID: 60145328006	Collected: 05/21/13 11:33	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>316000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:29	7440-70-2	
Magnesium, Dissolved	<b>47800</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:29	7439-95-4	
Potassium, Dissolved	<b>7630</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:29	7440-09-7	
Sodium, Dissolved	<b>7870</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:29	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>2720</b> ug/L		4.0	1	06/14/13 05:51	06/14/13 13:59	7429-90-5	
Antimony	ND ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-36-0	
Arsenic	<b>178</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-38-2	
Barium	<b>38.1</b> ug/L		0.30	1	06/14/13 05:51	06/14/13 13:59	7440-39-3	
Beryllium	<b>1.8</b> ug/L		0.20	1	06/14/13 05:51	06/14/13 13:59	7440-41-7	
Cadmium	<b>2.7</b> ug/L		0.080	1	06/14/13 05:51	06/14/13 13:59	7440-43-9	
Calcium	<b>341000</b> ug/L		400	20	06/14/13 05:51	06/14/13 14:05	7440-70-2	
Chromium	<b>3.9</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-47-3	
Cobalt	<b>8.6</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-48-4	
Copper	<b>77.2</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-50-8	
Iron	<b>72800</b> ug/L		1000	20	06/14/13 05:51	06/14/13 14:05	7439-89-6	
Lead	<b>250</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 13:59	7439-92-1	
Magnesium	<b>51000</b> ug/L		100	20	06/14/13 05:51	06/14/13 14:05	7439-95-4	
Manganese	<b>9590</b> ug/L		100	200	06/14/13 05:51	06/14/13 14:10	7439-96-5	
Molybdenum	<b>14.2</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7439-98-7	
Nickel	<b>7.1</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-02-0	
Potassium	<b>7870</b> ug/L		20.0	1	06/14/13 05:51	06/14/13 13:59	7440-09-7	
Selenium	<b>0.52</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7782-49-2	
Silica	<b>33500</b> ug/L		1070	20	06/14/13 05:51	06/14/13 14:05	7631-86-9	
Silver	<b>0.53</b> ug/L		0.50	1	06/14/13 05:51	06/14/13 13:59	7440-22-4	
Sodium	<b>7170</b> ug/L		50.0	1	06/14/13 05:51	06/14/13 13:59	7440-23-5	
Thallium	<b>0.16</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 13:59	7440-28-0	
Total Hardness by 2340B	<b>1060000</b> ug/L		1420	20	06/14/13 05:51	06/14/13 14:05		
Vanadium	<b>4.2</b> ug/L		0.10	1	06/14/13 05:51	06/14/13 13:59	7440-62-2	
Zinc	<b>7850</b> ug/L		100	20	06/14/13 05:51	06/14/13 14:05	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>434</b> ug/L		4.0	1	06/02/13 13:15	06/14/13 15:53	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-36-0	
Arsenic, Dissolved	<b>115</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-38-2	
Barium, Dissolved	<b>10.6</b> ug/L		0.30	1	06/02/13 13:15	06/14/13 15:53	7440-39-3	
Beryllium, Dissolved	<b>1.4</b> ug/L		0.20	1	06/02/13 13:15	06/14/13 15:53	7440-41-7	
Cadmium, Dissolved	<b>0.10</b> ug/L		0.080	1	06/02/13 13:15	06/14/13 15:53	7440-43-9	
Calcium, Dissolved	<b>354000</b> ug/L		400	20	06/02/13 13:15	06/12/13 22:05	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-47-3	
Cobalt, Dissolved	<b>7.9</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-48-4	
Copper, Dissolved	<b>6.7</b> ug/L		0.50	1	06/02/13 13:15	06/12/13 22:00	7440-50-8	
Iron, Dissolved	<b>60100</b> ug/L		1000	20	06/02/13 13:15	06/12/13 22:05	7439-89-6	
Lead, Dissolved	<b>0.96</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:53	7439-92-1	
Magnesium, Dissolved	<b>50600</b> ug/L		100	20	06/02/13 13:15	06/12/13 22:05	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: MW-5 DEEP_20130521	Lab ID: 60145328006	Collected: 05/21/13 11:33	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>9900</b> ug/L		25.0	50	06/02/13 13:15	06/13/13 15:04	7439-96-5	
Molybdenum, Dissolved	<b>11.2</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7439-98-7	
Nickel, Dissolved	<b>5.4</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-02-0	
Potassium, Dissolved	<b>7650</b> ug/L		20.0	1	06/02/13 13:15	06/14/13 15:53	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:53	7440-22-4	
Sodium, Dissolved	<b>7450</b> ug/L		50.0	1	06/02/13 13:15	06/14/13 15:53	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/14/13 15:53	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/14/13 15:53	7440-62-2	
Zinc, Dissolved	<b>7650</b> ug/L		100	20	06/02/13 13:15	06/12/13 22:05	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1550</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:22	7429-90-5	
Antimony, Dissolved	<b>0.18J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-36-0	
Arsenic, Dissolved	<b>133</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-38-2	
Barium, Dissolved	<b>21.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-39-3	
Beryllium, Dissolved	<b>1.5</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:22	7440-41-7	
Cadmium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:22	7440-43-9	
Chromium, Dissolved	<b>3.3</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 15:24	7440-47-3	
Cobalt, Dissolved	<b>8.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-48-4	
Copper, Dissolved	<b>24.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-50-8	
Iron, Dissolved	<b>66300</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:22	7439-89-6	
Lead, Dissolved	<b>263</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7439-92-1	
Manganese, Dissolved	<b>9610</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:10	7439-96-5	
Molybdenum, Dissolved	<b>3.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7439-98-7	
Nickel, Dissolved	<b>7.5</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-02-0	
Selenium, Dissolved	<b>0.45J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7782-49-2	
Silver, Dissolved	<b>0.17J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:22	7440-22-4	
Thallium, Dissolved	<b>0.13J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-28-0	
Vanadium, Dissolved	<b>1.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:22	7440-62-2	
Zinc, Dissolved	<b>7290</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:22	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:31	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:35	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 13:54	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1850</b> umhos/cm		10.0	1			05/28/13 10:59	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1180</b> mg/L		6.4	1			05/28/13 13:12	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: MW-5 DEEP_20130521	Lab ID: 60145328006	Collected: 05/21/13 11:33	Received: 05/23/13 10:20	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.94</b> PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>131</b> mg/L		20.0	1		05/30/13 11:14		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/30/13 11:14		
Alkalinity, Total as CaCO3	<b>131</b> mg/L		20.0	1		05/30/13 11:14		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>956</b> mg/L		5.0	1		05/24/13 13:06		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>95.0</b> mg/L		5.0	1		05/24/13 11:05		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/24/13 14:48 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.8</b> mg/L		1.0	1		06/06/13 13:18 16887-00-6		
Sulfate	<b>982</b> mg/L		100	100		06/06/13 13:35 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.11</b> mg/L		0.10	1		05/29/13 10:58		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:35 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.5</b> mg/L		1.0	1		06/07/13 14:35 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: BAH-01\_20130521      Lab ID: 60145328007      Collected: 05/21/13 13:40      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>194000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:38	7440-70-2	
Magnesium, Dissolved	<b>18800</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:38	7439-95-4	
Potassium, Dissolved	<b>12200</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:38	7440-09-7	
Sodium, Dissolved	<b>6690</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:38	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>564000</b> ug/L		200	50	06/14/13 05:51	06/14/13 14:40	7429-90-5	
Antimony	ND ug/L		10.0	20	06/14/13 05:51	06/19/13 08:48	7440-36-0	D3
Arsenic	<b>60.8</b> ug/L		2.5	5	06/14/13 05:51	06/19/13 08:43	7440-38-2	
Barium	ND ug/L		6.0	20	06/14/13 05:51	06/19/13 08:48	7440-39-3	D3
Beryllium	<b>528</b> ug/L		1.0	5	06/14/13 05:51	06/14/13 14:34	7440-41-7	
Cadmium	<b>3620</b> ug/L		1.6	20	06/14/13 05:51	06/19/13 08:48	7440-43-9	
Calcium	<b>681000</b> ug/L		1000	50	06/14/13 05:51	06/14/13 14:40	7440-70-2	
Chromium	<b>17200</b> ug/L		25.0	50	06/14/13 05:51	06/14/13 14:40	7440-47-3	
Cobalt	<b>569</b> ug/L		2.5	5	06/14/13 05:51	06/19/13 08:43	7440-48-4	
Copper	<b>227000</b> ug/L		1000	2000	06/14/13 05:51	06/14/13 17:57	7440-50-8	
Iron	<b>2550000</b> ug/L		25000	500	06/14/13 05:51	06/14/13 14:45	7439-89-6	
Lead	<b>287</b> ug/L		0.50	5	06/14/13 05:51	06/19/13 08:43	7439-92-1	
Magnesium	<b>77300</b> ug/L		25.0	5	06/14/13 05:51	06/19/13 08:43	7439-95-4	
Manganese	<b>188000</b> ug/L		250	500	06/14/13 05:51	06/14/13 14:45	7439-96-5	
Molybdenum	<b>13.4</b> ug/L		10.0	20	06/14/13 05:51	06/19/13 08:48	7439-98-7	
Nickel	<b>1310</b> ug/L		2.5	5	06/14/13 05:51	06/19/13 08:43	7440-02-0	
Potassium	<b>336</b> ug/L		100	5	06/14/13 05:51	06/19/13 08:43	7440-09-7	
Selenium	<b>66.0</b> ug/L		2.5	5	06/14/13 05:51	06/19/13 08:43	7782-49-2	
Silica	<b>1010000</b> ug/L		26800	500	06/14/13 05:51	06/14/13 14:45	7631-86-9	
Silver	ND ug/L		10.0	20	06/14/13 05:51	06/19/13 08:48	7440-22-4	D3
Sodium	<b>9260</b> ug/L		250	5	06/14/13 05:51	06/19/13 08:43	7440-23-5	
Thallium	<b>3.3</b> ug/L		0.50	5	06/14/13 05:51	06/19/13 08:43	7440-28-0	
Total Hardness by 2340B	<b>2010000</b> ug/L		3550	50	06/14/13 05:51	06/14/13 14:40		
Vanadium	<b>1.0</b> ug/L		0.50	5	06/14/13 05:51	06/19/13 08:43	7440-62-2	
Zinc	<b>514000</b> ug/L		10000	2000	06/14/13 05:51	06/14/13 17:57	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1480</b> ug/L		4.0	1	06/02/13 13:15	06/14/13 15:58	7429-90-5	
Antimony, Dissolved	<b>1.4</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-36-0	
Arsenic, Dissolved	<b>4.8</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-38-2	
Barium, Dissolved	<b>43.1</b> ug/L		0.30	1	06/02/13 13:15	06/14/13 15:58	7440-39-3	
Beryllium, Dissolved	<b>1.2</b> ug/L		0.20	1	06/02/13 13:15	06/14/13 15:58	7440-41-7	
Cadmium, Dissolved	<b>7.1</b> ug/L		0.080	1	06/02/13 13:15	06/14/13 15:58	7440-43-9	
Calcium, Dissolved	<b>163000</b> ug/L		400	20	06/02/13 13:15	06/13/13 15:27	7440-70-2	
Chromium, Dissolved	<b>36.9</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-47-3	
Cobalt, Dissolved	<b>1.3</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-48-4	
Copper, Dissolved	<b>326</b> ug/L		10.0	20	06/02/13 13:15	06/13/13 15:27	7440-50-8	
Iron, Dissolved	<b>32400</b> ug/L		1000	20	06/02/13 13:15	06/13/13 15:27	7439-89-6	
Lead, Dissolved	<b>87.8</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:58	7439-92-1	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Sample: BAH-01\_20130521      Lab ID: 60145328007      Collected: 05/21/13 13:40      Received: 05/23/13 10:20      Matrix: Water

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>15600</b> ug/L		5.0	1	06/02/13 13:15	06/14/13 15:58	7439-95-4	
Manganese, Dissolved	<b>1490</b> ug/L		10.0	20	06/02/13 13:15	06/13/13 15:27	7439-96-5	
Molybdenum, Dissolved	<b>45.3</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7439-98-7	
Nickel, Dissolved	<b>14.7</b> ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-02-0	
Potassium, Dissolved	<b>24700</b> ug/L		400	20	06/02/13 13:15	06/13/13 15:27	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/02/13 13:15	06/14/13 15:58	7440-22-4	
Sodium, Dissolved	<b>11800</b> ug/L		50.0	1	06/02/13 13:15	06/14/13 15:58	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/02/13 13:15	06/14/13 15:58	7440-28-0	
Vanadium, Dissolved	<b>0.62</b> ug/L		0.10	1	06/02/13 13:15	06/14/13 15:58	7440-62-2	
Zinc, Dissolved	<b>932</b> ug/L		100	20	06/02/13 13:15	06/13/13 15:27	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>155000</b> ug/L		5000	100	06/04/13 13:30	06/05/13 12:14	7429-90-5	
Antimony, Dissolved	<b>1.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-36-0	
Arsenic, Dissolved	<b>5.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-38-2	
Barium, Dissolved	<b>562</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-39-3	
Beryllium, Dissolved	<b>120</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:27	7440-41-7	
Cadmium, Dissolved	<b>1560</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:27	7440-43-9	
Chromium, Dissolved	<b>4890</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:14	7440-47-3	
Cobalt, Dissolved	<b>55.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-48-4	
Copper, Dissolved	<b>44100</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:14	7440-50-8	
Iron, Dissolved	<b>1930000</b> ug/L		5000	100	06/04/13 13:30	06/05/13 12:14	7439-89-6	
Lead, Dissolved	<b>13600</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:14	7439-92-1	
Manganese, Dissolved	<b>72900</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:14	7439-96-5	
Molybdenum, Dissolved	<b>5.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7439-98-7	
Nickel, Dissolved	<b>335</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-02-0	
Selenium, Dissolved	<b>26.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7782-49-2	
Silver, Dissolved	<b>4.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:27	7440-22-4	
Thallium, Dissolved	<b>3.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:27	7440-28-0	
Vanadium, Dissolved	ND ug/L		100	100	06/04/13 13:30	06/05/13 12:14	7440-62-2	
Zinc, Dissolved	<b>152000</b> ug/L		1000	100	06/04/13 13:30	06/05/13 12:14	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		2.0	10	06/04/13 15:50	06/05/13 16:34	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:37	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 14:01	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>956</b> umhos/cm		10.0	1			05/28/13 11:01	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

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**Sample: BAH-01\_20130521      Lab ID: 60145328007      Collected: 05/21/13 13:40      Received: 05/23/13 10:20      Matrix: Water**

Comments: • All reported results confirmed for total vs. diss metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>612</b> mg/L		6.4	1		05/28/13 13:12		
Salinity (as seawater)	<b>0.47</b> PSU		0.014	1		05/28/13 13:12		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	ND	mg/L	60.0	3		05/30/13 11:18		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	60.0	3		05/30/13 11:18		
Alkalinity, Total as CaCO <sub>3</sub>	ND	mg/L	60.0	3		05/30/13 11:18		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>368</b> mg/L		5.0	1		05/24/13 13:06		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>820</b> mg/L		5.0	1		05/24/13 11:06		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	<b>0.069</b> mg/L		0.050	1		05/24/13 14:49	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>2.5</b> mg/L		1.0	1		06/06/13 13:53	16887-00-6	
Sulfate	<b>490</b> mg/L		50.0	50		06/06/13 14:11	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND	mg/L	0.10	1		05/29/13 10:59		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	<b>0.0095</b> mg/L		0.0050	1		05/28/13 16:36	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>4.2</b> mg/L		1.0	1		06/07/13 14:45	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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June 26, 2013

Mark DeFriez  
Anderson Engineering Company I  
977 W 2100 S.  
Salt Lake City, UT 84119

RE: Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Dear Mark DeFriez:

Enclosed are the analytical results for sample(s) received by the laboratory on May 24, 2013. The results relate only to the within this report conform to the most current version of the TNI standards, BP LaMP Technical Requirements Revision 10.1, and any applicable Quality Assurance Project Plan (QAPP), or Work Plan unless otherwise narrated in the body of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Heather Wilson

heather.wilson@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: MAY 2013 RICO WATER SAMPLING  
 Pace Project No.: 60145450

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### **Minnesota Certification IDs**

1700 Elm Street SE Suite 200, Minneapolis, MN 55414  
 A2LA Certification #: 2926.01  
 Alaska Certification #: UST-078  
 Alaska Certification #MN00064  
 Arizona Certification #: AZ-0014  
 Arkansas Certification #: 88-0680  
 California Certification #: 01155CA  
 Colorado Certification #Pace  
 Connecticut Certification #: PH-0256  
 EPA Region 8 Certification #: Pace  
 Florida/NELAP Certification #: E87605  
 Georgia Certification #: 959  
 Hawaii Certification #Pace  
 Idaho Certification #: MN00064  
 Illinois Certification #: 200011  
 Kansas Certification #: E-10167  
 Louisiana Certification #: 03086  
 Louisiana Certification #: LA080009  
 Maine Certification #: 2007029  
 Maryland Certification #: 322  
 Michigan DEQ Certification #: 9909  
 Minnesota Certification #: 027-053-137  
 Mississippi Certification #: Pace

Montana Certification #: MT CERT0092  
 Nebraska Certification #: Pace  
 Nevada Certification #: MN\_00064  
 New Jersey Certification #: MN-002  
 New York Certification #: 11647  
 North Carolina Certification #: 530  
 North Dakota Certification #: R-036  
 North Dakota Certification #: R-036A  
 Ohio VAP Certification #: CL101  
 Oklahoma Certification #: 9507  
 Oregon Certification #: MN200001  
 Oregon Certification #: MN300001  
 Pennsylvania Certification #: 68-00563  
 Puerto Rico Certification  
 Tennessee Certification #: 02818  
 Texas Certification #: T104704192  
 Utah Certification #: MN00064  
 Virginia/DCLS Certification #: 002521  
 Virginia/VELAP Certification #: 460163  
 Washington Certification #: C754  
 West Virginia Certification #: 382  
 Wisconsin Certification #: 999407970

### **Montana Certification IDs**

602 South 25th Street, Billings, MT 59101  
 EPA Region 8 Certification #: 8TMS-Q  
 Idaho Certification #: MT00012  
 Montana Certification #: MT CERT0040

NVLAP Certification #: 101292-0  
 Minnesota Dept of Health Certification #: 030-999-442  
 Washington Department of Ecology #: C993

### **Kansas Certification IDs**

9608 Loiret Boulevard, Lenexa, KS 66219  
 WY STR Certification #: 2456.01  
 Arkansas Certification #: 13-012-0  
 Illinois Certification #: 003097  
 Iowa Certification #: 118  
 Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
 Nevada Certification #: KS000212008A  
 Oklahoma Certification #: 9205/9935  
 Texas Certification #: T104704407-13-4  
 Utah Certification #: KS000212013-3  
 Illinois Certification #: 003097

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60145450001	EB-1_20130522	Water	05/22/13 10:45	05/24/13 10:15
60145450002	EB-2_20130522	Water	05/22/13 10:52	05/24/13 10:15
60145450003	MW-3 DEEP_20130522	Water	05/22/13 11:37	05/24/13 10:15
60145450004	MW-103_20130522	Water	05/22/13 12:22	05/24/13 10:15
60145450005	MW-104_20130522	Water	05/22/13 13:09	05/24/13 10:15
60145450006	GW-1_20130522	Water	05/22/13 10:32	05/24/13 10:15
60145450007	GW-4_20130522	Water	05/22/13 11:30	05/24/13 10:15
60145450008	DR-6_20130522	Water	05/22/13 15:21	05/24/13 10:15
60145450009	FB-LAB_20130522	Water	05/22/13 15:38	05/24/13 10:15
60145450010	DR-10_20130522	Water	05/22/13 15:23	05/24/13 10:15
60145450011	MW-2 DEEP_20130522	Water	05/22/13 12:10	05/24/13 10:15
60145450012	FB-FIELD_20130522	Water	05/22/13 15:36	05/24/13 10:15
60145450013	AT-2_20130522	Water	05/22/13 13:55	05/24/13 10:15
60145450014	CHV-101S_20130522	Water	05/22/13 14:50	05/24/13 10:15
60145450015	GW-3_20130522	Water	05/22/13 10:15	05/24/13 10:15
60145450016	DR-5_20130523	Water	05/23/13 10:17	05/24/13 10:15
60145450017	DR-4_20130523	Water	05/23/13 10:31	05/24/13 10:15
60145450018	DR-7_20130523	Water	05/23/13 10:00	05/24/13 10:15
60145450019	DR-G_20130523	Water	05/23/13 09:05	05/24/13 10:15
60145450020	DR-2_20130523	Water	05/23/13 10:10	05/24/13 10:15
60145450021	DR-4-SW_20130523	Water	05/23/13 09:30	05/24/13 10:15
60145450022	DR-11_20130523	Water	05/23/13 10:14	05/24/13 10:15
60145450023	DR-12_20130523	Water	05/23/13 10:36	05/24/13 10:15

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450001	EB-1_20130522	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60145450002	EB-2_20130522	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
60145450003	MW-3 DEEP_20130522	EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450004	MW-103_20130522	EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
60145450005	MW-104_20130522	SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450006	GW-1_20130522	EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450007	GW-4_20130522	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450008	DR-6_20130522	SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450009	FB-LAB_20130522	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450010	DR-10_20130522	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
60145450011	MW-2 DEEP_20130522	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytics Reported	Laboratory
60145450012	FB-FIELD_20130522	SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	TJT	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450013	AT-2_20130522	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
60145450014	CHV-101S_20130522	SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450015	GW-3_20130522	EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450016	DR-5_20130523	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450017	DR-4_20130523	EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450018	DR-7_20130523	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450019	DR-G_20130523	SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
60145450020	DR-2_20130523	Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	TT3	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450021	DR-4-SW_20130523	SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
60145450022	DR-11_20130523	SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K

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## SAMPLE ANALYTE COUNT

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60145450023	DR-12_20130523	EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K
		EPA 200.7	SMW	4	PASI-K
		EPA 200.8	RJS	25	PASI-M
		EPA 200.8	TT3	23	PASI-M
		EPA 200.8	JGP	19	PASI-K
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	WBS	1	PASI-M
		EPA 245.1	TDS	1	PASI-K
		SM 2510B	CS1	1	
		Calculated	CS1	2	
		SM 2320B	JMC	3	PASI-K
		SM 2540C	RAS	1	PASI-K
		SM 2540D	RAS	1	PASI-K
		SM 4500-S-2 D	OL	1	PASI-K
		EPA 300.0	OL	2	PASI-K
		EPA 353.2	DJR	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K
		SM 5310C	JML	1	PASI-K

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.7**

**Description:** 200.7 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### General Information:

23 samples were analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MPRP/22905

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293461 [MPRP/229 (Lab ID: 1198762)]
  - Calcium, Dissolved
  - Sodium, Dissolved

QC Batch: MPRP/22906

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293462 [MPRP/229 (Lab ID: 1198767)]
  - Sodium, Dissolved

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22906

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450013,60145450014

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1198771)
  - Calcium, Dissolved

### Additional Comments:

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.7**

**Description:** 200.7 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### **General Information:**

23 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### **Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Sample Preparation:**

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

### **Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

### **Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

### **Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### **Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39723

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450003,60145450015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1450427)
  - Aluminum
  - Calcium
  - Iron
  - Potassium
- MS (Lab ID: 1450429)
  - Aluminum
  - Calcium
  - Iron
  - Magnesium
  - Manganese
  - Potassium
- MSD (Lab ID: 1450428)
  - Aluminum

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

QC Batch: MPRP/39723

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450003,60145450015

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Calcium
- Magnesium
- Potassium

QC Batch: MPRP/39724

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1450434)
  - Aluminum
- MSD (Lab ID: 1450435)
  - Aluminum

### Additional Comments:

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

Analyte Comments:

QC Batch: MPRP/39723

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1450427)
  - Calcium
- MS (Lab ID: 1450429)
  - Calcium
- MSD (Lab ID: 1450428)
  - Calcium

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** EPA 200.8

**Description:** 200.8 MET ICPMS

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

Analyte Comments:

QC Batch: MPRP/39724

P8: Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

- BLANK (Lab ID: 1450432)
- Magnesium

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/39721

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450003,60145450011

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1450418)
  - Calcium, Dissolved
  - Magnesium, Dissolved
- MS (Lab ID: 1450420)
  - Calcium, Dissolved
  - Magnesium, Dissolved
  - Sodium, Dissolved
- MSD (Lab ID: 1450419)
  - Calcium, Dissolved
  - Magnesium, Dissolved

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 MET ICPMS, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

### Analyte Comments:

QC Batch: MPRP/39721

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1450418)
  - Calcium, Dissolved
- MS (Lab ID: 1450420)
  - Calcium, Dissolved
- MSD (Lab ID: 1450419)
  - Calcium, Dissolved

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### General Information:

23 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

QC Batch: MPRP/22907

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293463 [MPRP/229 (Lab ID: 1198772)]
  - Barium, Dissolved
  - Iron, Dissolved
  - Lead, Dissolved
  - Zinc, Dissolved

QC Batch: MPRP/22908

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293464 [MPRP/229 (Lab ID: 1198777)]
  - Lead, Dissolved

QC Batch: MPRP/22961

B: Analyte was detected in the associated method blank.

- BLANK for HBN 293825 [MPRP/229 (Lab ID: 1200118)]
  - Chromium, Dissolved
  - Copper, Dissolved
  - Zinc, Dissolved

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/22907

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145328003,60145328004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1198774)
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved
- MS (Lab ID: 1198776)
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved
- MSD (Lab ID: 1198775)
  - Copper, Dissolved
  - Iron, Dissolved
  - Lead, Dissolved
  - Manganese, Dissolved
  - Zinc, Dissolved

QC Batch: MPRP/22908

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450015,60145450016

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1198779)
  - Manganese, Dissolved
- MSD (Lab ID: 1198780)
  - Manganese, Dissolved

QC Batch: MPRP/22961

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450002,60145450003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1200120)
  - Zinc, Dissolved
- MSD (Lab ID: 1200121)
  - Zinc, Dissolved

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply  
• MW-103\_20130522 (Lab ID: 60145450004)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 200.8**

**Description:** 200.8 Potentially Diss. Metals

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### Sample Comments:

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

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**Method:** **EPA 245.1**

**Description:** 245.1 Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### General Information:

23 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 245.1**

**Description:** 245.1 Mercury, Dissolved

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 245.1**

**Description:** 245.1 Potentially Diss Mercury

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### General Information:

23 samples were analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 2510B**

**Description:** 2510B Specific Conductance  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for SM 2510B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply  
• MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply  
• DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 2510B**

**Description:** 2510B Specific Conductance

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

Sample Comments:

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** Calculated

**Description:** Salinity

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

### General Information:

23 samples were analyzed for Calculated. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 2320B**  
**Description:** 2320B Alkalinity  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply  
• MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals  
• DR-6\_20130522 (Lab ID: 60145450008)  
• DR-10\_20130522 (Lab ID: 60145450010)  
• DR-5\_20130523 (Lab ID: 60145450016)  
• DR-4\_20130523 (Lab ID: 60145450017)  
• DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply  
• DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals  
• DR-12\_20130523 (Lab ID: 60145450023)  
• DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 2540C**

**Description:** 2540C Total Dissolved Solids  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 2540D**

**Description:** 2540D Total Suspended Solids

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WET/41534

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 1195263)
- Total Suspended Solids

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **SM 4500-S-2 D**

**Description:** 4500S2D Sulfide, Total

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for SM 4500-S-2 D. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 300.0**

**Description:** 300.0 IC Anions 28 Days

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/25020

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145450021,60145790002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1200879)
- Chloride

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 353.2**

**Description:** 353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

**General Information:**

23 samples were analyzed for EPA 353.2. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/24878

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60145328002, 60145328004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1195332)
- Nitrogen, NO<sub>2</sub> plus NO<sub>3</sub>

**Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

**Additional Comments:**

Sample Comments:

BP Anderson Tech Specs Apply

- MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals

- DR-6\_20130522 (Lab ID: 60145450008)
- DR-10\_20130522 (Lab ID: 60145450010)
- DR-5\_20130523 (Lab ID: 60145450016)
- DR-4\_20130523 (Lab ID: 60145450017)
- DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply

- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** **EPA 353.2**

**Description:** 353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.

**Client:** BP Anderson Engineering Company Inc.

**Date:** June 26, 2013

Sample Comments:

All reported results confirmed for total vs. dissolved metals

- DR-12\_20130523 (Lab ID: 60145450023)
- DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** SM 4500-CN-E  
**Description:** 4500CNE Cyanide, Total  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 26, 2013

### General Information:

23 samples were analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

BP Anderson Tech Specs Apply  
• MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals  
• DR-6\_20130522 (Lab ID: 60145450008)  
• DR-10\_20130522 (Lab ID: 60145450010)  
• DR-5\_20130523 (Lab ID: 60145450016)  
• DR-4\_20130523 (Lab ID: 60145450017)  
• DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply  
• DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals  
• DR-12\_20130523 (Lab ID: 60145450023)  
• DR-11\_20130523 (Lab ID: 60145450022)

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## PROJECT NARRATIVE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

---

**Method:** SM 5310C  
**Description:** 5310C TOC  
**Client:** BP Anderson Engineering Company Inc.  
**Date:** June 26, 2013

### General Information:

23 samples were analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

#### Sample Comments:

BP Anderson Tech Specs Apply  
• MW-103\_20130522 (Lab ID: 60145450004)

All reported results confirmed for total vs. dissolved metals  
• DR-6\_20130522 (Lab ID: 60145450008)  
• DR-10\_20130522 (Lab ID: 60145450010)  
• DR-5\_20130523 (Lab ID: 60145450016)  
• DR-4\_20130523 (Lab ID: 60145450017)  
• DR-7\_20130523 (Lab ID: 60145450018)

BP Anderson Tech Specs Apply  
• DR-11\_20130523 (Lab ID: 60145450022)

All reported results confirmed for total vs. dissolved metals  
• DR-12\_20130523 (Lab ID: 60145450023)  
• DR-11\_20130523 (Lab ID: 60145450022)

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-1_20130522	Lab ID: 60145450001	Collected: 05/22/13 10:45	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>423000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:42	7440-70-2	
Magnesium, Dissolved	<b>27200</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:42	7439-95-4	
Potassium, Dissolved	<b>5220</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:42	7440-09-7	
Sodium, Dissolved	<b>7980</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:42	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>1280</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 18:55	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-36-0	
Arsenic	<b>13.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-38-2	
Barium	<b>27.7</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 18:55	7440-39-3	
Beryllium	<b>0.45</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 18:55	7440-41-7	
Cadmium	<b>3.9</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 18:55	7440-43-9	
Calcium	<b>474000</b> ug/L		1000	50	06/10/13 10:00	06/14/13 16:05	7440-70-2	
Chromium	<b>1.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-47-3	
Cobalt	<b>5.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-48-4	
Copper	<b>70.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-50-8	
Iron	<b>11500</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 18:55	7439-89-6	
Lead	<b>237</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 18:55	7439-92-1	
Magnesium	<b>30000</b> ug/L		100	20	06/10/13 10:00	06/13/13 19:01	7439-95-4	
Manganese	<b>3890</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 19:01	7439-96-5	
Molybdenum	<b>15.2</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7439-98-7	
Nickel	<b>5.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-02-0	
Potassium	<b>5390</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 18:55	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7782-49-2	
Silica	<b>28100</b> ug/L		1070	20	06/10/13 10:00	06/13/13 19:01	7631-86-9	
Silver	<b>0.82</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 18:55	7440-22-4	
Sodium	<b>7320</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 18:55	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 18:55	7440-28-0	
Total Hardness by 2340B	<b>1310000</b> ug/L		3550	50	06/10/13 10:00	06/14/13 16:05		
Vanadium	<b>1.9</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 18:55	7440-62-2	
Zinc	<b>2130</b> ug/L		100	20	06/10/13 10:00	06/13/13 19:01	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>66.1</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:28	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-36-0	
Arsenic, Dissolved	<b>7.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-38-2	
Barium, Dissolved	<b>14.6</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:28	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 14:28	7440-41-7	
Cadmium, Dissolved	<b>0.44</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:28	7440-43-9	
Calcium, Dissolved	<b>452000</b> ug/L		1000	50	06/10/13 10:02	06/17/13 14:33	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-47-3	
Cobalt, Dissolved	<b>5.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-48-4	
Copper, Dissolved	<b>4.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-50-8	
Iron, Dissolved	<b>4170</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:28	7439-89-6	
Lead, Dissolved	<b>12.5</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 14:28	7439-92-1	
Magnesium, Dissolved	<b>29400</b> ug/L		100	20	06/10/13 10:02	06/14/13 02:43	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-1_20130522	Lab ID: 60145450001	Collected: 05/22/13 10:45	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>3760</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 02:43	7439-96-5	
Molybdenum, Dissolved	<b>15.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7439-98-7	
Nickel, Dissolved	<b>5.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-02-0	
Potassium, Dissolved	<b>5250</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:28	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:28	7440-22-4	
Sodium, Dissolved	<b>7720</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:28	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:28	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:28	7440-62-2	
Zinc, Dissolved	<b>1310</b> ug/L		100	20	06/10/13 10:02	06/14/13 02:43	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>785</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:31	7429-90-5	
Antimony, Dissolved	<b>0.20J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-36-0	
Arsenic, Dissolved	<b>11.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-38-2	
Barium, Dissolved	<b>20.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-39-3	
Beryllium, Dissolved	<b>0.41J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:31	7440-41-7	
Cadmium, Dissolved	<b>4.1</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:31	7440-43-9	
Chromium, Dissolved	<b>2.1</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 15:59	7440-47-3	
Cobalt, Dissolved	<b>5.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-48-4	
Copper, Dissolved	<b>66.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-50-8	
Iron, Dissolved	<b>9910</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:31	7439-89-6	
Lead, Dissolved	<b>245</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7439-92-1	
Manganese, Dissolved	<b>3920</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7439-96-5	
Molybdenum, Dissolved	<b>13.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7439-98-7	
Nickel, Dissolved	<b>6.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7782-49-2	
Silver, Dissolved	<b>0.068J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:31	7440-22-4	
Thallium, Dissolved	<b>0.040J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-28-0	
Vanadium, Dissolved	<b>0.73J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:31	7440-62-2	
Zinc, Dissolved	<b>1930</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:31	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:04	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:21	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 14:03	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>2040</b> umhos/cm		10.0	1			05/30/13 14:24	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1310</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-1_20130522	Lab ID: 60145450001	Collected: 05/22/13 10:45	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>1.0</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>165</b>	mg/L	20.0	1		05/31/13 11:57		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/31/13 11:57		
Alkalinity, Total as CaCO3	<b>165</b>	mg/L	20.0	1		05/31/13 11:57		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1540</b>	mg/L	5.0	1		05/28/13 09:20		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>67.0</b>	mg/L	5.0	1		05/28/13 10:55		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:19 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 11:20 16887-00-6		
Sulfate	<b>1060</b>	mg/L	100	100		06/08/13 19:25 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 11:00		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:37 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.5</b>	mg/L	1.0	1		06/10/13 10:05 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-2_20130522	Lab ID: 60145450002	Collected: 05/22/13 10:52	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>294000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:45	7440-70-2	
Magnesium, Dissolved	<b>168000</b> ug/L		100	2	06/04/13 13:30	06/06/13 10:03	7439-95-4	
Potassium, Dissolved	<b>18800</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:45	7440-09-7	
Sodium, Dissolved	<b>7250</b> ug/L		1000	2	06/04/13 13:30	06/06/13 10:03	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>24400</b> ug/L		80.0	20	06/10/13 10:00	06/13/13 19:13	7429-90-5	
Antimony	<b>0.59</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-36-0	
Arsenic	<b>407</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-38-2	
Barium	<b>22.5</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 19:07	7440-39-3	
Beryllium	<b>8.9</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 19:07	7440-41-7	
Cadmium	<b>7.1</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 19:07	7440-43-9	
Calcium	<b>377000</b> ug/L		400	20	06/10/13 10:00	06/13/13 19:13	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-47-3	
Cobalt	<b>78.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-48-4	
Copper	<b>97.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-50-8	
Iron	<b>807000</b> ug/L		10000	200	06/10/13 10:00	06/13/13 19:19	7439-89-6	
Lead	<b>1040</b> ug/L		2.0	20	06/10/13 10:00	06/13/13 19:13	7439-92-1	
Magnesium	<b>187000</b> ug/L		100	20	06/10/13 10:00	06/13/13 19:13	7439-95-4	
Manganese	<b>40400</b> ug/L		100	200	06/10/13 10:00	06/13/13 19:19	7439-96-5	
Molybdenum	<b>4.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7439-98-7	
Nickel	<b>112</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-02-0	
Potassium	<b>21500</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 19:07	7440-09-7	
Selenium	<b>2.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7782-49-2	
Silica	<b>50400</b> ug/L		1070	20	06/10/13 10:00	06/13/13 19:13	7631-86-9	
Silver	<b>2.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:07	7440-22-4	
Sodium	<b>7120</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 19:07	7440-23-5	
Thallium	<b>0.18</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:07	7440-28-0	
Total Hardness by 2340B	<b>1710000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 19:13		
Vanadium	<b>1.8</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:07	7440-62-2	
Zinc	<b>86900</b> ug/L		1000	200	06/10/13 10:00	06/13/13 19:19	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>20000</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:38	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-36-0	
Arsenic, Dissolved	<b>302</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-38-2	
Barium, Dissolved	<b>8.8</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:38	7440-39-3	
Beryllium, Dissolved	<b>8.6</b> ug/L		0.20	1	06/10/13 10:02	06/17/13 14:38	7440-41-7	
Cadmium, Dissolved	<b>1.6</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:38	7440-43-9	
Calcium, Dissolved	<b>360000</b> ug/L		400	20	06/10/13 10:02	06/14/13 02:53	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-47-3	
Cobalt, Dissolved	<b>72.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-48-4	
Copper, Dissolved	<b>1.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-50-8	
Iron, Dissolved	<b>775000</b> ug/L		10000	200	06/10/13 10:02	06/14/13 02:58	7439-89-6	
Lead, Dissolved	<b>9.4</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 14:38	7439-92-1	
Magnesium, Dissolved	<b>181000</b> ug/L		100	20	06/10/13 10:02	06/14/13 02:53	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-2_20130522	Lab ID: 60145450002	Collected: 05/22/13 10:52	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>39400</b> ug/L		100	200	06/10/13 10:02	06/14/13 02:58	7439-96-5	
Molybdenum, Dissolved	<b>3.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7439-98-7	
Nickel, Dissolved	<b>105</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-02-0	
Potassium, Dissolved	<b>20400</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:38	7440-09-7	
Selenium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:38	7440-22-4	
Sodium, Dissolved	<b>7130</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:38	7440-23-5	
Thallium, Dissolved	<b>0.11</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 14:38	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:38	7440-62-2	
Zinc, Dissolved	<b>83100</b> ug/L		1000	200	06/10/13 10:02	06/14/13 02:58	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>20700</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:35	7429-90-5	
Antimony, Dissolved	<b>0.33J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-36-0	
Arsenic, Dissolved	<b>473</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-38-2	
Barium, Dissolved	<b>13.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-39-3	
Beryllium, Dissolved	<b>8.1</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:35	7440-41-7	
Cadmium, Dissolved	<b>5.4</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:35	7440-43-9	
Chromium, Dissolved	<b>1.6</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:02	7440-47-3	
Cobalt, Dissolved	<b>90.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-48-4	
Copper, Dissolved	<b>73.9</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:02	7440-50-8	
Iron, Dissolved	<b>790000</b> ug/L		5000	100	06/04/13 13:30	06/05/13 12:19	7439-89-6	
Lead, Dissolved	<b>827</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7439-92-1	
Manganese, Dissolved	<b>39700</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:19	7439-96-5	
Molybdenum, Dissolved	<b>3.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7439-98-7	
Nickel, Dissolved	<b>136</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-02-0	
Selenium, Dissolved	<b>3.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7782-49-2	
Silver, Dissolved	<b>0.43J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:35	7440-22-4	
Thallium, Dissolved	<b>0.16J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-28-0	
Vanadium, Dissolved	<b>0.55J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:35	7440-62-2	
Zinc, Dissolved	<b>81700</b> ug/L		100	10	06/06/13 14:00	06/07/13 17:20	7440-66-6	M1
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:06	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:23	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 14:06	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>4000</b> umhos/cm		10.0	1			05/30/13 14:26	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>2560</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: EB-2_20130522	Lab ID: 60145450002	Collected: 05/22/13 10:52	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>2.1</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	20.0	1		05/31/13 12:00		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		05/31/13 12:00		
Alkalinity, Total as CaCO3	ND	mg/L	20.0	1		05/31/13 12:00		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>2480</b>	mg/L	5.0	1		05/28/13 09:20		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>194</b>	mg/L	5.0	1		05/28/13 10:56		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:22 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 12:06 16887-00-6		
Sulfate	<b>2870</b>	mg/L	500	500		06/08/13 20:12 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 11:01		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:39 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.6</b>	mg/L	1.0	1		06/10/13 10:23 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-3 DEEP_20130522	Lab ID: 60145450003	Collected: 05/22/13 11:37	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>234000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:48	7440-70-2	
Magnesium, Dissolved	<b>22900</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:48	7439-95-4	
Potassium, Dissolved	<b>5870</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:48	7440-09-7	
Sodium, Dissolved	<b>12300</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:48	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>2110</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 19:24	7429-90-5	M1
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-36-0	
Arsenic	<b>3.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-38-2	
Barium	<b>67.3</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 19:24	7440-39-3	
Beryllium	<b>0.22</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 19:24	7440-41-7	
Cadmium	<b>1.7</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 19:24	7440-43-9	
Calcium	<b>268000</b> ug/L		400	20	06/10/13 10:00	06/13/13 19:35	7440-70-2	M1
Chromium	<b>2.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-47-3	
Cobalt	<b>1.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-48-4	
Copper	<b>22.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-50-8	
Iron	<b>5460</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 19:24	7439-89-6	M1
Lead	<b>25.1</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:24	7439-92-1	
Magnesium	<b>25300</b> ug/L		25.0	5	06/10/13 10:00	06/13/13 19:30	7439-95-4	M1
Manganese	<b>1430</b> ug/L		2.5	5	06/10/13 10:00	06/13/13 19:30	7439-96-5	
Molybdenum	<b>9.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7439-98-7	
Nickel	<b>1.0</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-02-0	
Potassium	<b>6450</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 19:24	7440-09-7	M1
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7782-49-2	
Silica	<b>21800</b> ug/L		268	5	06/10/13 10:00	06/13/13 19:30	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:24	7440-22-4	
Sodium	<b>11900</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 19:24	7440-23-5	
Thallium	<b>0.14</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:24	7440-28-0	
Total Hardness by 2340B	<b>773000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 19:35		
Vanadium	<b>5.3</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:24	7440-62-2	
Zinc	<b>100</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 19:24	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>9.7</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:43	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-36-0	
Arsenic, Dissolved	<b>0.84</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-38-2	
Barium, Dissolved	<b>19.6</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:43	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 14:43	7440-41-7	
Cadmium, Dissolved	<b>0.089</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:43	7440-43-9	
Calcium, Dissolved	<b>251000</b> ug/L		400	20	06/10/13 10:02	06/14/13 03:13	7440-70-2	M1
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-47-3	
Cobalt, Dissolved	<b>0.95</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-48-4	
Copper, Dissolved	<b>0.57</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-50-8	
Iron, Dissolved	<b>1210</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:43	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:43	7439-92-1	
Magnesium, Dissolved	<b>22400</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 14:43	7439-95-4	M1

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-3 DEEP_20130522	Lab ID: 60145450003	Collected: 05/22/13 11:37	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>1340</b> ug/L		2.5	5	06/10/13 10:02	06/14/13 03:08	7439-96-5	
Molybdenum, Dissolved	<b>8.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7439-98-7	
Nickel, Dissolved	<b>0.54</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-02-0	
Potassium, Dissolved	<b>5640</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:43	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:43	7440-22-4	
Sodium, Dissolved	<b>11700</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:43	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:43	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:43	7440-62-2	
Zinc, Dissolved	<b>34.8</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 14:43	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>862</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:39	7429-90-5	
Antimony, Dissolved	<b>0.11J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-36-0	
Arsenic, Dissolved	<b>2.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-38-2	
Barium, Dissolved	<b>47.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-39-3	
Beryllium, Dissolved	<b>0.16J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:39	7440-41-7	
Cadmium, Dissolved	<b>1.8</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:39	7440-43-9	
Chromium, Dissolved	<b>3.2</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:14	7440-47-3	
Cobalt, Dissolved	<b>1.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-48-4	
Copper, Dissolved	<b>18.9</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:14	7440-50-8	
Iron, Dissolved	<b>4460</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:39	7439-89-6	
Lead, Dissolved	<b>26.5</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7439-92-1	
Manganese, Dissolved	<b>1400</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7439-96-5	
Molybdenum, Dissolved	<b>5.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7439-98-7	
Nickel, Dissolved	<b>1.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 10:39	7440-22-4	
Thallium, Dissolved	<b>0.12J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-28-0	
Vanadium, Dissolved	<b>2.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:39	7440-62-2	
Zinc, Dissolved	<b>192</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 16:14	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:08	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:25	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 16:30	06/05/13 14:08	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1240</b> umhos/cm		10.0	1			05/30/13 14:27	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>795</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-3 DEEP_20130522	Lab ID: 60145450003	Collected: 05/22/13 11:37	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.62</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>89.0</b> mg/L		20.0	1		05/31/13 12:03		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		05/31/13 12:03		
Alkalinity, Total as CaCO3	<b>89.0</b> mg/L		20.0	1		05/31/13 12:03		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>941</b> mg/L		5.0	1		05/28/13 09:22		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>68.0</b> mg/L		5.0	1		05/28/13 10:58		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:22 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 12:21 16887-00-6		
Sulfate	<b>622</b> mg/L		100	100		06/08/13 20:58 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:02		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:40 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.4</b> mg/L		1.0	1		06/10/13 10:42 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: MW-103\_20130522      Lab ID: 60145450004      Collected: 05/22/13 12:22      Received: 05/24/13 10:15      Matrix: Water**

Comments: • BP Anderson Tech Specs Apply

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>306000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:51	7440-70-2	
Magnesium, Dissolved	<b>30800</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:51	7439-95-4	
Potassium, Dissolved	<b>4650</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:51	7440-09-7	
Sodium, Dissolved	<b>16000</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:51	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>2240</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 19:58	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-36-0	
Arsenic	<b>11.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-38-2	
Barium	<b>52.0</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 19:58	7440-39-3	
Beryllium	<b>0.71</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 19:58	7440-41-7	
Cadmium	<b>1.1</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 19:58	7440-43-9	
Calcium	<b>344000</b> ug/L		400	20	06/10/13 10:00	06/13/13 20:03	7440-70-2	
Chromium	<b>2.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-47-3	
Cobalt	<b>4.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-48-4	
Copper	<b>8.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-50-8	
Iron	<b>11900</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 19:58	7439-89-6	
Lead	<b>7.6</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:58	7439-92-1	
Magnesium	<b>34500</b> ug/L		100	20	06/10/13 10:00	06/13/13 20:03	7439-95-4	
Manganese	<b>8850</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 20:03	7439-96-5	
Molybdenum	<b>10.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7439-98-7	
Nickel	<b>2.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-02-0	
Potassium	<b>4980</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 19:58	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7782-49-2	
Silica	<b>38400</b> ug/L		1070	20	06/10/13 10:00	06/13/13 20:03	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 19:58	7440-22-4	
Sodium	<b>14900</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 19:58	7440-23-5	
Thallium	<b>0.16</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:58	7440-28-0	
Total Hardness by 2340B	<b>1000000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 20:03		
Vanadium	<b>4.1</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 19:58	7440-62-2	
Zinc	<b>186</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 19:58	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>22.3</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:48	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-36-0	
Arsenic, Dissolved	<b>3.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-38-2	
Barium, Dissolved	<b>32.4</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:48	7440-39-3	
Beryllium, Dissolved	<b>0.37</b> ug/L		0.20	1	06/10/13 10:02	06/17/13 14:48	7440-41-7	
Cadmium, Dissolved	<b>0.14</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:48	7440-43-9	
Calcium, Dissolved	<b>329000</b> ug/L		400	20	06/10/13 10:02	06/14/13 03:41	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-47-3	
Cobalt, Dissolved	<b>3.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-48-4	
Copper, Dissolved	<b>1.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-50-8	
Iron, Dissolved	<b>6360</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:48	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:48	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: MW-103\_20130522      Lab ID: 60145450004      Collected: 05/22/13 12:22      Received: 05/24/13 10:15      Matrix: Water**

Comments: • BP Anderson Tech Specs Apply

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>32600</b> ug/L		100	20	06/10/13 10:02	06/14/13 03:41	7439-95-4	
Manganese, Dissolved	<b>8590</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 03:41	7439-96-5	
Molybdenum, Dissolved	<b>9.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7439-98-7	
Nickel, Dissolved	<b>5.6</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-02-0	
Potassium, Dissolved	<b>4480</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:48	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:48	7440-22-4	
Sodium, Dissolved	<b>15300</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:48	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:48	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:48	7440-62-2	
Zinc, Dissolved	<b>128</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 14:48	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>933</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:43	7429-90-5	
Antimony, Dissolved	<b>0.063J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-36-0	
Arsenic, Dissolved	<b>7.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-38-2	
Barium, Dissolved	<b>44.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-39-3	
Beryllium, Dissolved	<b>0.65</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:43	7440-41-7	
Cadmium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:43	7440-43-9	
Chromium, Dissolved	<b>2.6</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:26	7440-47-3	
Cobalt, Dissolved	<b>4.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-48-4	
Copper, Dissolved	<b>7.0</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:26	7440-50-8	
Iron, Dissolved	<b>10600</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:43	7439-89-6	
Lead, Dissolved	<b>8.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7439-92-1	
Manganese, Dissolved	<b>8810</b> ug/L		100	100	06/04/13 13:30	06/05/13 12:23	7439-96-5	
Molybdenum, Dissolved	<b>6.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7439-98-7	
Nickel, Dissolved	<b>3.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 10:43	7440-22-4	
Thallium, Dissolved	<b>0.16J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-28-0	
Vanadium, Dissolved	<b>2.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:43	7440-62-2	
Zinc, Dissolved	<b>173</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 16:26	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:16	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:32	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:04	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1640</b> umhos/cm		10.0	1			05/30/13 14:29	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: MW-103\_20130522      Lab ID: 60145450004      Collected: 05/22/13 12:22      Received: 05/24/13 10:15      Matrix: Water**

Comments: • BP Anderson Tech Specs Apply

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>1050</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.83</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>368</b> mg/L		20.0	1		06/05/13 09:32		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/05/13 09:32		
Alkalinity, Total as CaCO3	<b>368</b> mg/L		20.0	1		06/05/13 09:32		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1200</b> mg/L		5.0	1		05/28/13 09:22		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>118</b> mg/L		5.0	1		05/28/13 10:58		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:23	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 12:37	16887-00-6	
Sulfate	<b>599</b> mg/L		100	100		06/08/13 21:13	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:03		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:41	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.4</b> mg/L		1.0	1		06/10/13 10:52	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-104_20130522	Lab ID: 60145450005	Collected: 05/22/13 13:09	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>248000</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:55	7440-70-2	
Magnesium, Dissolved	<b>21300</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:55	7439-95-4	
Potassium, Dissolved	<b>7950</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:55	7440-09-7	
Sodium, Dissolved	<b>14100</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:55	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>375</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 20:08	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-38-2	
Barium	<b>24.4</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 20:08	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 20:08	7440-41-7	
Cadmium	<b>2.4</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 20:08	7440-43-9	
Calcium	<b>281000</b> ug/L		400	20	06/10/13 10:00	06/13/13 20:13	7440-70-2	
Chromium	<b>1.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-48-4	
Copper	<b>3.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-50-8	
Iron	<b>555</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 20:08	7439-89-6	
Lead	<b>3.1</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:08	7439-92-1	
Magnesium	<b>22100</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 20:08	7439-95-4	
Manganese	<b>134</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7439-96-5	
Molybdenum	<b>10.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7439-98-7	
Nickel	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-02-0	
Potassium	<b>8100</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 20:08	7440-09-7	
Selenium	<b>1.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7782-49-2	
Silica	<b>20300</b> ug/L		1070	20	06/10/13 10:00	06/13/13 20:13	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 20:08	7440-22-4	
Sodium	<b>13300</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 20:08	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 20:08	7440-28-0	
Total Hardness by 2340B	<b>794000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 20:13		
Vanadium	<b>0.87</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:08	7440-62-2	
Zinc	<b>826</b> ug/L		100	20	06/10/13 10:00	06/13/13 20:13	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>36.7</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:53	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-38-2	
Barium, Dissolved	<b>17.6</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:53	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 14:53	7440-41-7	
Cadmium, Dissolved	<b>2.3</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:53	7440-43-9	
Calcium, Dissolved	<b>275000</b> ug/L		400	20	06/10/13 10:02	06/14/13 03:51	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-48-4	
Copper, Dissolved	<b>1.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-50-8	
Iron, Dissolved	<b>64.9</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:53	7439-89-6	
Lead, Dissolved	<b>0.47</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 14:53	7439-92-1	
Magnesium, Dissolved	<b>21800</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 14:53	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-104_20130522	Lab ID: 60145450005	Collected: 05/22/13 13:09	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>28.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7439-96-5	
Molybdenum, Dissolved	<b>10.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7439-98-7	
Nickel, Dissolved	<b>3.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-02-0	
Potassium, Dissolved	<b>8020</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:53	7440-09-7	
Selenium, Dissolved	<b>1.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:53	7440-22-4	
Sodium, Dissolved	<b>13900</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:53	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:53	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:53	7440-62-2	
Zinc, Dissolved	<b>787</b> ug/L		100	20	06/10/13 10:02	06/14/13 03:51	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>182</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:47	7429-90-5	
Antimony, Dissolved	<b>0.049J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-36-0	
Arsenic, Dissolved	<b>0.34J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-38-2	
Barium, Dissolved	<b>25.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 10:47	7440-41-7	
Cadmium, Dissolved	<b>2.6</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:47	7440-43-9	
Chromium, Dissolved	<b>1.5</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:35	7440-47-3	
Cobalt, Dissolved	<b>0.25J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-48-4	
Copper, Dissolved	<b>3.0</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:35	7440-50-8	B
Iron, Dissolved	<b>457</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:47	7439-89-6	
Lead, Dissolved	<b>3.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7439-92-1	
Manganese, Dissolved	<b>140</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7439-96-5	
Molybdenum, Dissolved	<b>9.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7439-98-7	
Nickel, Dissolved	<b>1.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-02-0	
Selenium, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 10:47	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-28-0	
Vanadium, Dissolved	<b>0.39J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:47	7440-62-2	
Zinc, Dissolved	<b>769</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:47	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:23	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:38	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:06	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1280</b> umhos/cm		10.0	1			05/30/13 14:30	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>820</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-104_20130522	Lab ID: 60145450005	Collected: 05/22/13 13:09	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.64</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>128</b>	mg/L	20.0	1		06/05/13 09:45		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		06/05/13 09:45		
Alkalinity, Total as CaCO3	<b>128</b>	mg/L	20.0	1		06/05/13 09:45		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1050</b>	mg/L	5.0	1		05/28/13 09:22		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>22.0</b>	mg/L	5.0	1		05/28/13 10:58		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:23	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 12:52	16887-00-6	
Sulfate	<b>642</b>	mg/L	100	100		06/08/13 21:29	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 11:05		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:45	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/10/13 11:00	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-1_20130522	Lab ID: 60145450006	Collected: 05/22/13 10:32	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>40900</b> ug/L		100	1	06/04/13 13:30	06/05/13 13:58	7440-70-2	
Magnesium, Dissolved	<b>5880</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:58	7439-95-4	
Potassium, Dissolved	<b>1100</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:58	7440-09-7	
Sodium, Dissolved	<b>2400</b> ug/L		500	1	06/04/13 13:30	06/05/13 13:58	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>12300</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 20:18	7429-90-5	
Antimony	<b>0.60</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-36-0	
Arsenic	<b>19.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-38-2	
Barium	<b>312</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 20:18	7440-39-3	
Beryllium	<b>1.1</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 20:18	7440-41-7	
Cadmium	<b>2.3</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 20:18	7440-43-9	
Calcium	<b>47400</b> ug/L		400	20	06/10/13 10:00	06/13/13 20:24	7440-70-2	
Chromium	<b>12.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-47-3	
Cobalt	<b>14.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-48-4	
Copper	<b>80.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-50-8	
Iron	<b>22300</b> ug/L		1000	20	06/10/13 10:00	06/13/13 20:24	7439-89-6	
Lead	<b>65.9</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:18	7439-92-1	
Magnesium	<b>10000</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 20:18	7439-95-4	
Manganese	<b>2720</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 20:24	7439-96-5	
Molybdenum	<b>5.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7439-98-7	
Nickel	<b>24.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-02-0	
Potassium	<b>3530</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 20:18	7440-09-7	
Selenium	<b>1.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7782-49-2	
Silica	<b>47000</b> ug/L		1070	20	06/10/13 10:00	06/13/13 20:24	7631-86-9	
Silver	<b>0.56</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:18	7440-22-4	
Sodium	<b>2640</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 20:18	7440-23-5	
Thallium	<b>0.38</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:18	7440-28-0	
Total Hardness by 2340B	<b>160000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 20:24		
Vanadium	<b>27.1</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:18	7440-62-2	
Zinc	<b>256</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 20:18	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>ND</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 14:58	7429-90-5	
Antimony, Dissolved	<b>ND</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-36-0	
Arsenic, Dissolved	<b>ND</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-38-2	
Barium, Dissolved	<b>46.3</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 14:58	7440-39-3	
Beryllium, Dissolved	<b>ND</b> ug/L		0.20	1	06/10/13 10:02	06/17/13 14:58	7440-41-7	
Cadmium, Dissolved	<b>ND</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 14:58	7440-43-9	
Calcium, Dissolved	<b>42000</b> ug/L		400	20	06/10/13 10:02	06/14/13 04:01	7440-70-2	
Chromium, Dissolved	<b>ND</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-47-3	
Cobalt, Dissolved	<b>ND</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-48-4	
Copper, Dissolved	<b>1.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-50-8	
Iron, Dissolved	<b>ND</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:58	7439-89-6	
Lead, Dissolved	<b>ND</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 14:58	7439-92-1	
Magnesium, Dissolved	<b>4660</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 14:58	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-1_20130522	Lab ID: 60145450006	Collected: 05/22/13 10:32	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>1.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7439-96-5	
Molybdenum, Dissolved	<b>1.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7439-98-7	
Nickel, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-02-0	
Potassium, Dissolved	<b>618</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 14:58	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 14:58	7440-22-4	
Sodium, Dissolved	<b>2230</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 14:58	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:58	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 14:58	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	06/10/13 10:02	06/17/13 14:58	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>3420</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:51	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-36-0	
Arsenic, Dissolved	<b>3.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-38-2	
Barium, Dissolved	<b>280</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-39-3	
Beryllium, Dissolved	<b>0.61</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:51	7440-41-7	
Cadmium, Dissolved	<b>2.1</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:51	7440-43-9	
Chromium, Dissolved	<b>6.1</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:38	7440-47-3	
Cobalt, Dissolved	<b>8.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-48-4	
Copper, Dissolved	<b>46.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-50-8	
Iron, Dissolved	<b>6420</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:51	7439-89-6	
Lead, Dissolved	<b>43.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7439-92-1	
Manganese, Dissolved	<b>1970</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7439-96-5	
Molybdenum, Dissolved	<b>0.30J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7439-98-7	
Nickel, Dissolved	<b>15.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-02-0	
Selenium, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7782-49-2	
Silver, Dissolved	<b>1.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:51	7440-22-4	
Thallium, Dissolved	<b>0.031J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-28-0	
Vanadium, Dissolved	<b>7.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:51	7440-62-2	
Zinc, Dissolved	<b>146</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:51	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	<b>0.80</b> ug/L		0.20	1	06/08/13 12:01	06/09/13 16:26	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:40	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:08	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>251</b> umhos/cm		10.0	1			05/30/13 14:32	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>160</b> mg/L		6.4	1			05/31/13 10:45	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-1_20130522	Lab ID: 60145450006	Collected: 05/22/13 10:32	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.12</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>88.9</b> mg/L		20.0	1		06/05/13 09:49		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/05/13 09:49		
Alkalinity, Total as CaCO3	<b>88.9</b> mg/L		20.0	1		06/05/13 09:49		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>113</b> mg/L		5.0	1		05/28/13 09:23		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>321</b> mg/L		5.0	1		05/28/13 10:59		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:24 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.4</b> mg/L		1.0	1		06/07/13 13:08 16887-00-6		
Sulfate	<b>32.2</b> mg/L		5.0	5		06/08/13 21:44 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:06		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:45 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>3.0</b> mg/L		1.0	1		06/10/13 11:26 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-4_20130522	Lab ID: 60145450007	Collected: 05/22/13 11:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>174000</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:01	7440-70-2	
Magnesium, Dissolved	<b>24400</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:01	7439-95-4	
Potassium, Dissolved	<b>4150</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:01	7440-09-7	
Sodium, Dissolved	<b>7320</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:01	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>43200</b> ug/L		80.0	20	06/10/13 10:00	06/13/13 20:36	7429-90-5	
Antimony	<b>0.82</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-36-0	
Arsenic	<b>32.2</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-38-2	
Barium	<b>719</b> ug/L		6.0	20	06/10/13 10:00	06/13/13 20:36	7440-39-3	
Beryllium	<b>2.4</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 20:30	7440-41-7	
Cadmium	<b>10.1</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 20:30	7440-43-9	
Calcium	<b>208000</b> ug/L		400	20	06/10/13 10:00	06/13/13 20:36	7440-70-2	
Chromium	<b>64.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-47-3	
Cobalt	<b>24.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-48-4	
Copper	<b>194</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-50-8	
Iron	<b>93100</b> ug/L		1000	20	06/10/13 10:00	06/13/13 20:36	7439-89-6	
Lead	<b>188</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:30	7439-92-1	
Magnesium	<b>47900</b> ug/L		100	20	06/10/13 10:00	06/13/13 20:36	7439-95-4	
Manganese	<b>2010</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 20:36	7439-96-5	
Molybdenum	<b>23.0</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7439-98-7	
Nickel	<b>47.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-02-0	
Potassium	<b>8510</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 20:30	7440-09-7	
Selenium	<b>3.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7782-49-2	
Silica	<b>134000</b> ug/L		2680	50	06/10/13 10:00	06/14/13 16:10	7631-86-9	
Silver	<b>2.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 20:30	7440-22-4	
Sodium	<b>8250</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 20:30	7440-23-5	
Thallium	<b>0.71</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:30	7440-28-0	
Total Hardness by 2340B	<b>717000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 20:36		
Vanadium	<b>90.5</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 20:30	7440-62-2	
Zinc	<b>1300</b> ug/L		100	20	06/10/13 10:00	06/13/13 20:36	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>396</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 15:31	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-36-0	
Arsenic, Dissolved	<b>0.55</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-38-2	
Barium, Dissolved	<b>43.5</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 15:31	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:31	7440-41-7	
Cadmium, Dissolved	<b>0.25</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 15:31	7440-43-9	
Calcium, Dissolved	<b>181000</b> ug/L		400	20	06/10/13 10:02	06/14/13 04:11	7440-70-2	
Chromium, Dissolved	<b>1.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-47-3	
Cobalt, Dissolved	<b>0.90</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-48-4	
Copper, Dissolved	<b>3.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-50-8	
Iron, Dissolved	<b>620</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:31	7439-89-6	
Lead, Dissolved	<b>1.3</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 15:31	7439-92-1	
Magnesium, Dissolved	<b>19500</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 15:31	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-4_20130522	Lab ID: 60145450007	Collected: 05/22/13 11:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>409</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7439-96-5	
Molybdenum, Dissolved	<b>8.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7439-98-7	
Nickel, Dissolved	<b>5.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-02-0	
Potassium, Dissolved	<b>3150</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:31	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:31	7440-22-4	
Sodium, Dissolved	<b>7400</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:31	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:31	7440-28-0	
Vanadium, Dissolved	<b>0.91</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 15:31	7440-62-2	
Zinc, Dissolved	<b>29.3</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 15:31	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>12000</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:56	7429-90-5	
Antimony, Dissolved	<b>0.18J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-36-0	
Arsenic, Dissolved	<b>9.5</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-38-2	
Barium, Dissolved	<b>109</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-39-3	
Beryllium, Dissolved	<b>1.7</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:56	7440-41-7	
Cadmium, Dissolved	<b>11.1</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:56	7440-43-9	
Chromium, Dissolved	<b>26.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-47-3	
Cobalt, Dissolved	<b>14.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-48-4	
Copper, Dissolved	<b>171</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-50-8	
Iron, Dissolved	<b>42100</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 10:56	7439-89-6	
Lead, Dissolved	<b>194</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7439-92-1	
Manganese, Dissolved	<b>1640</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7439-96-5	
Molybdenum, Dissolved	<b>4.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7439-98-7	
Nickel, Dissolved	<b>24.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-02-0	
Selenium, Dissolved	<b>2.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7782-49-2	
Silver, Dissolved	<b>0.74</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 10:56	7440-22-4	
Thallium, Dissolved	<b>0.32J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-28-0	
Vanadium, Dissolved	<b>32.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 10:56	7440-62-2	
Zinc, Dissolved	<b>980</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 10:56	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	<b>0.27</b> ug/L		0.20	1	06/08/13 12:01	06/09/13 16:28	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:42	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:10	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>925</b> umhos/cm		10.0	1			05/30/13 14:37	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>592</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-4_20130522	Lab ID: 60145450007	Collected: 05/22/13 11:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.45</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>122</b>	mg/L	20.0	1		06/05/13 09:52		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		06/05/13 09:52		
Alkalinity, Total as CaCO3	<b>122</b>	mg/L	20.0	1		06/05/13 09:52		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>604</b>	mg/L	5.0	1		05/28/13 09:24		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>2020</b>	mg/L	5.0	1		05/28/13 11:00		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:24 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.2</b>	mg/L	1.0	1		06/07/13 13:23 16887-00-6		
Sulfate	<b>395</b>	mg/L	50.0	50		06/08/13 22:00 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.19</b>	mg/L	0.10	1		05/29/13 11:07		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:48 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>3.7</b>	mg/L	1.0	1		06/10/13 11:35 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-6\_20130522      Lab ID: 60145450008      Collected: 05/22/13 15:21      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>278000</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:04	7440-70-2	
Magnesium, Dissolved	<b>23900</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:04	7439-95-4	
Potassium, Dissolved	<b>6000</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:04	7440-09-7	
Sodium, Dissolved	<b>16200</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:04	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>24.2</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 21:11	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-38-2	
Barium	<b>20.9</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 21:11	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 21:11	7440-41-7	
Cadmium	<b>8.3</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 21:11	7440-43-9	
Calcium	<b>298000</b> ug/L		400	20	06/10/13 10:00	06/13/13 21:16	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-47-3	
Cobalt	<b>1.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-48-4	
Copper	<b>3.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-50-8	
Iron	<b>462</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:11	7439-89-6	
Lead	<b>0.48</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 21:11	7439-92-1	
Magnesium	<b>26000</b> ug/L		100	20	06/10/13 10:00	06/13/13 21:16	7439-95-4	
Manganese	<b>1280</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 21:16	7439-96-5	
Molybdenum	<b>13.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7439-98-7	
Nickel	<b>1.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-02-0	
Potassium	<b>5870</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 21:11	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7782-49-2	
Silica	<b>21200</b> ug/L		1070	20	06/10/13 10:00	06/13/13 21:16	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:11	7440-22-4	
Sodium	<b>15000</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:11	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:11	7440-28-0	
Total Hardness by 2340B	<b>851000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 21:16		
Vanadium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:11	7440-62-2	
Zinc	<b>1190</b> ug/L		100	20	06/10/13 10:00	06/13/13 21:16	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>5.9</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 15:36	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-38-2	
Barium, Dissolved	<b>21.4</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 15:36	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:36	7440-41-7	
Cadmium, Dissolved	<b>8.1</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 15:36	7440-43-9	
Calcium, Dissolved	<b>304000</b> ug/L		400	20	06/10/13 10:02	06/14/13 04:51	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-47-3	
Cobalt, Dissolved	<b>1.6</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-48-4	
Copper, Dissolved	<b>2.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-50-8	
Iron, Dissolved	<b>84.2</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:36	7439-89-6	
Lead, Dissolved	<b>0.11</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 15:36	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-6\_20130522      Lab ID: 60145450008      Collected: 05/22/13 15:21      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>26700</b> ug/L		100	20	06/10/13 10:02	06/14/13 04:51	7439-95-4	
Manganese, Dissolved	<b>1320</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 04:51	7439-96-5	
Molybdenum, Dissolved	<b>13.9</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7439-98-7	
Nickel, Dissolved	<b>5.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-02-0	
Potassium, Dissolved	<b>6030</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:36	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:36	7440-22-4	
Sodium, Dissolved	<b>16000</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:36	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:36	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:36	7440-62-2	
Zinc, Dissolved	<b>1190</b> ug/L		100	20	06/10/13 10:02	06/14/13 04:51	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>20.5J</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:16	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-36-0	
Arsenic, Dissolved	<b>0.17J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-38-2	
Barium, Dissolved	<b>23.5</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-39-3	
Beryllium, Dissolved	<b>0.070J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 11:16	7440-41-7	
Cadmium, Dissolved	<b>8.7</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 11:16	7440-43-9	
Chromium, Dissolved	<b>0.96J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:41	7440-47-3	B
Cobalt, Dissolved	<b>1.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-48-4	
Copper, Dissolved	<b>3.7</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:41	7440-50-8	B
Iron, Dissolved	<b>613</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:16	7439-89-6	
Lead, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7439-92-1	
Manganese, Dissolved	<b>1280</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7439-96-5	
Molybdenum, Dissolved	<b>13.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7439-98-7	
Nickel, Dissolved	<b>2.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:16	7440-22-4	
Thallium, Dissolved	<b>0.057J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:16	7440-62-2	
Zinc, Dissolved	<b>1110</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 11:16	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:31	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:44	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:17	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1370</b> umhos/cm		10.0	1			05/30/13 14:38	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-6\_20130522      Lab ID: 60145450008      Collected: 05/22/13 15:21      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>874</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.68</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>158</b> mg/L		20.0	1		06/05/13 09:56		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/05/13 09:56		
Alkalinity, Total as CaCO <sub>3</sub>	<b>158</b> mg/L		20.0	1		06/05/13 09:56		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1120</b> mg/L		5.0	1		05/28/13 09:25		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>8.0</b> mg/L		5.0	1		05/28/13 11:00		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:25	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 14:09	16887-00-6	
Sulfate	<b>689</b> mg/L		100	100		06/08/13 22:15	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:08		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:48	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/10/13 11:44	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-LAB_20130522	Lab ID: 60145450009	Collected: 05/22/13 15:38	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>38.4J</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:07	7440-70-2	B
Magnesium, Dissolved	ND ug/L		50.0	1	06/04/13 13:30	06/05/13 14:07	7439-95-4	
Potassium, Dissolved	ND ug/L		500	1	06/04/13 13:30	06/05/13 14:07	7440-09-7	
Sodium, Dissolved	<b>610</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:07	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>7.3</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 21:21	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-38-2	
Barium	<b>0.34</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 21:21	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 21:21	7440-41-7	
Cadmium	ND ug/L		0.080	1	06/10/13 10:00	06/13/13 21:21	7440-43-9	
Calcium	<b>112</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 21:21	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-48-4	
Copper	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-50-8	
Iron	ND ug/L		50.0	1	06/10/13 10:00	06/13/13 21:21	7439-89-6	
Lead	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:21	7439-92-1	
Magnesium	<b>17.5</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 21:21	7439-95-4	
Manganese	<b>0.65</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7439-96-5	
Molybdenum	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7439-98-7	
Nickel	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-02-0	
Potassium	ND ug/L		20.0	1	06/10/13 10:00	06/13/13 21:21	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7782-49-2	
Silica	<b>112</b> ug/L		53.5	1	06/10/13 10:00	06/13/13 21:21	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:21	7440-22-4	
Sodium	<b>472</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:21	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:21	7440-28-0	
Total Hardness by 2340B	<b>353</b> ug/L		71.0	1	06/10/13 10:00	06/13/13 21:21		
Vanadium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:21	7440-62-2	
Zinc	ND ug/L		5.0	1	06/10/13 10:00	06/13/13 21:21	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		4.0	1	06/10/13 10:02	06/17/13 15:41	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-38-2	
Barium, Dissolved	ND ug/L		0.30	1	06/10/13 10:02	06/17/13 15:41	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:41	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	06/10/13 10:02	06/17/13 15:41	7440-43-9	
Calcium, Dissolved	<b>68.8</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:41	7440-70-2	
Chromium, Dissolved	<b>0.54</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-48-4	
Copper, Dissolved	<b>1.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 15:41	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:41	7439-92-1	
Magnesium, Dissolved	<b>14.9</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 15:41	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-LAB_20130522	Lab ID: 60145450009	Collected: 05/22/13 15:38	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7439-98-7	
Nickel, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-02-0	
Potassium, Dissolved	37.8 ug/L		20.0	1	06/10/13 10:02	06/17/13 15:41	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:41	7440-22-4	
Sodium, Dissolved	508 ug/L		50.0	1	06/10/13 10:02	06/17/13 15:41	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:41	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:41	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	06/10/13 10:02	06/17/13 15:41	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	06/04/13 13:30	06/05/13 11:08	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-36-0	
Arsenic, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-38-2	
Barium, Dissolved	0.40J ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-39-3	B
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:08	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:08	7440-43-9	
Chromium, Dissolved	0.86J ug/L		1.0	1	06/06/13 14:00	06/07/13 16:29	7440-47-3	B
Cobalt, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-48-4	
Copper, Dissolved	0.91J ug/L		1.0	1	06/06/13 14:00	06/07/13 16:29	7440-50-8	B
Iron, Dissolved	30.1J ug/L		50.0	1	06/04/13 13:30	06/05/13 11:08	7439-89-6	B
Lead, Dissolved	0.083J ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7439-92-1	B
Manganese, Dissolved	0.42J ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7439-96-5	
Molybdenum, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7439-98-7	
Nickel, Dissolved	0.49J ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:08	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:08	7440-62-2	
Zinc, Dissolved	2.8J ug/L		10.0	1	06/06/13 14:00	06/07/13 16:29	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:33	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:46	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:26	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	ND umhos/cm		10.0	1			05/30/13 14:43	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	ND mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-LAB_20130522	Lab ID: 60145450009	Collected: 05/22/13 15:38	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	ND	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		06/05/13 09:59		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		06/05/13 09:59		
Alkalinity, Total as CaCO <sub>3</sub>	ND	mg/L	20.0	1		06/05/13 09:59		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	5.0	1		05/28/13 09:25		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		05/28/13 11:01		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:25	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 14:25	16887-00-6	
Sulfate	ND	mg/L	1.0	1		06/07/13 14:25	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND	mg/L	0.10	1		05/29/13 11:09		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:49	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/10/13 11:52	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-10\_20130522      Lab ID: 60145450010      Collected: 05/22/13 15:23      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>262000</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:17	7440-70-2	
Magnesium, Dissolved	<b>23300</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:17	7439-95-4	
Potassium, Dissolved	<b>5730</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:17	7440-09-7	
Sodium, Dissolved	<b>15600</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:17	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>15.3</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 21:32	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-38-2	
Barium	<b>21.0</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 21:32	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 21:32	7440-41-7	
Cadmium	<b>8.3</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 21:32	7440-43-9	
Calcium	<b>301000</b> ug/L		400	20	06/10/13 10:00	06/13/13 21:36	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-47-3	
Cobalt	<b>1.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-48-4	
Copper	<b>3.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-50-8	
Iron	<b>456</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:32	7439-89-6	
Lead	<b>0.45</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 21:32	7439-92-1	
Magnesium	<b>26400</b> ug/L		100	20	06/10/13 10:00	06/13/13 21:36	7439-95-4	
Manganese	<b>1280</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 21:36	7439-96-5	
Molybdenum	<b>13.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7439-98-7	
Nickel	<b>2.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-02-0	
Potassium	<b>5960</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 21:32	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7782-49-2	
Silica	<b>21500</b> ug/L		1070	20	06/10/13 10:00	06/13/13 21:36	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:32	7440-22-4	
Sodium	<b>15300</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:32	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:32	7440-28-0	
Total Hardness by 2340B	<b>861000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 21:36		
Vanadium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:32	7440-62-2	
Zinc	<b>1220</b> ug/L		100	20	06/10/13 10:00	06/13/13 21:36	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		4.0	1	06/10/13 10:02	06/17/13 15:46	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-38-2	
Barium, Dissolved	<b>21.9</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 15:46	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:46	7440-41-7	
Cadmium, Dissolved	<b>8.2</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 15:46	7440-43-9	
Calcium, Dissolved	<b>304000</b> ug/L		400	20	06/10/13 10:02	06/14/13 05:11	7440-70-2	
Chromium, Dissolved	<b>0.74</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-47-3	
Cobalt, Dissolved	<b>1.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-48-4	
Copper, Dissolved	<b>1.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-50-8	
Iron, Dissolved	<b>52.6</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:46	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:46	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-10\_20130522      Lab ID: 60145450010      Collected: 05/22/13 15:23      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>26800</b> ug/L		100	20	06/10/13 10:02	06/14/13 05:11	7439-95-4	
Manganese, Dissolved	<b>1330</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 05:11	7439-96-5	
Molybdenum, Dissolved	<b>14.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7439-98-7	
Nickel, Dissolved	<b>3.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-02-0	
Potassium, Dissolved	<b>6130</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:46	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:46	7440-22-4	
Sodium, Dissolved	<b>16200</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:46	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:46	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:46	7440-62-2	
Zinc, Dissolved	<b>1150</b> ug/L		100	20	06/10/13 10:02	06/14/13 05:11	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>25.7J</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:20	7429-90-5	
Antimony, Dissolved	<b>0.15J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-36-0	
Arsenic, Dissolved	<b>0.20J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-38-2	
Barium, Dissolved	<b>22.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-39-3	
Beryllium, Dissolved	<b>0.076J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 11:20	7440-41-7	
Cadmium, Dissolved	<b>8.5</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 11:20	7440-43-9	
Chromium, Dissolved	<b>1.1</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:44	7440-47-3	B
Cobalt, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-48-4	
Copper, Dissolved	<b>3.8</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:44	7440-50-8	B
Iron, Dissolved	<b>678</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:20	7439-89-6	
Lead, Dissolved	<b>1.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7439-92-1	
Manganese, Dissolved	<b>1240</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7439-96-5	
Molybdenum, Dissolved	<b>13.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7439-98-7	
Nickel, Dissolved	<b>3.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:20	7440-22-4	
Thallium, Dissolved	<b>0.058J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:20	7440-62-2	
Zinc, Dissolved	<b>1080</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 11:20	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:41	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:52	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:28	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1370</b> umhos/cm		10.0	1			05/30/13 14:44	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-10\_20130522      Lab ID: 60145450010      Collected: 05/22/13 15:23      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>877</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.68</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>157</b> mg/L		20.0	1		06/05/13 10:11		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/05/13 10:11		
Alkalinity, Total as CaCO <sub>3</sub>	<b>157</b> mg/L		20.0	1		06/05/13 10:11		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>1110</b> mg/L		5.0	1		05/28/13 09:26		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>8.0</b> mg/L		5.0	1		05/28/13 11:01		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:25	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 14:40	16887-00-6	
Sulfate	<b>674</b> mg/L		100	100		06/08/13 22:30	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:10		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/28/13 16:49	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/10/13 12:00	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-2 DEEP_20130522	Lab ID: 60145450011	Collected: 05/22/13 12:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>241000</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:20	7440-70-2	
Magnesium, Dissolved	<b>21400</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:20	7439-95-4	
Potassium, Dissolved	<b>1710</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:20	7440-09-7	
Sodium, Dissolved	<b>11400</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:20	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>254</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 21:41	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-36-0	
Arsenic	<b>0.63</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-38-2	
Barium	<b>16.4</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 21:41	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 21:41	7440-41-7	
Cadmium	<b>0.95</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 21:41	7440-43-9	
Calcium	<b>277000</b> ug/L		400	20	06/10/13 10:00	06/13/13 21:46	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-48-4	
Copper	<b>1.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-50-8	
Iron	<b>518</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:41	7439-89-6	
Lead	<b>2.6</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 21:41	7439-92-1	
Magnesium	<b>24200</b> ug/L		100	20	06/10/13 10:00	06/13/13 21:46	7439-95-4	
Manganese	<b>12.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7439-96-5	
Molybdenum	<b>6.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7439-98-7	
Nickel	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-02-0	
Potassium	<b>1830</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 21:41	7440-09-7	
Selenium	<b>1.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7782-49-2	
Silica	<b>12800</b> ug/L		1070	20	06/10/13 10:00	06/13/13 21:46	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:41	7440-22-4	
Sodium	<b>11000</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:41	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:41	7440-28-0	
Total Hardness by 2340B	<b>791000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 21:46		
Vanadium	<b>0.53</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 21:41	7440-62-2	
Zinc	<b>24.2</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 21:41	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>6.3</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 15:51	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-38-2	
Barium, Dissolved	<b>12.8</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 15:51	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:51	7440-41-7	
Cadmium, Dissolved	<b>0.88</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 15:51	7440-43-9	
Calcium, Dissolved	<b>274000</b> ug/L		400	20	06/10/13 10:02	06/14/13 05:21	7440-70-2	M1
Chromium, Dissolved	<b>0.77</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-48-4	
Copper, Dissolved	<b>1.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 15:51	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:51	7439-92-1	
Magnesium, Dissolved	<b>24400</b> ug/L		100	20	06/10/13 10:02	06/14/13 05:21	7439-95-4	M1

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-2 DEEP_20130522	Lab ID: 60145450011	Collected: 05/22/13 12:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>2.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7439-96-5	
Molybdenum, Dissolved	<b>6.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7439-98-7	
Nickel, Dissolved	<b>3.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-02-0	
Potassium, Dissolved	<b>1780</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:51	7440-09-7	
Selenium, Dissolved	<b>1.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:51	7440-22-4	
Sodium, Dissolved	<b>11300</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:51	7440-23-5	M1
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:51	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:51	7440-62-2	
Zinc, Dissolved	<b>21.7</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 15:51	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>93.7</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:25	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-36-0	
Arsenic, Dissolved	<b>0.23J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-38-2	
Barium, Dissolved	<b>14.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:25	7440-41-7	
Cadmium, Dissolved	<b>1.3</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 11:25	7440-43-9	
Chromium, Dissolved	<b>2.4</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:47	7440-47-3	
Cobalt, Dissolved	<b>0.052J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-48-4	
Copper, Dissolved	<b>1.5</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:47	7440-50-8	B
Iron, Dissolved	<b>640</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:25	7439-89-6	
Lead, Dissolved	<b>4.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7439-92-1	
Manganese, Dissolved	<b>20.8</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7439-96-5	
Molybdenum, Dissolved	<b>6.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7439-98-7	
Nickel, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-02-0	
Selenium, Dissolved	<b>1.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:25	7440-22-4	
Thallium, Dissolved	<b>0.059J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:25	7440-62-2	
Zinc, Dissolved	<b>22.9</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 16:47	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:43	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:54	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:30	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1210</b> umhos/cm		10.0	1			05/30/13 14:46	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>773</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: MW-2 DEEP_20130522	Lab ID: 60145450011	Collected: 05/22/13 12:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.60</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>99.4</b>	mg/L	20.0	1		06/05/13 10:15		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		06/05/13 10:15		
Alkalinity, Total as CaCO3	<b>99.4</b>	mg/L	20.0	1		06/05/13 10:15		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>937</b>	mg/L	5.0	1		05/28/13 09:26		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>9.0</b>	mg/L	5.0	1		05/28/13 11:02		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:28	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 15:11	16887-00-6	
Sulfate	<b>619</b>	mg/L	100	100		06/08/13 23:01	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 11:10		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:52	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/11/13 10:01	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-FIELD_20130522	Lab ID: 60145450012	Collected: 05/22/13 15:36	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>42.7</b> ug/L		100	1	06/04/13 13:30	06/05/13 14:23	7440-70-2	B
Magnesium, Dissolved	ND ug/L		50.0	1	06/04/13 13:30	06/05/13 14:23	7439-95-4	
Potassium, Dissolved	ND ug/L		500	1	06/04/13 13:30	06/05/13 14:23	7440-09-7	
Sodium, Dissolved	<b>524</b> ug/L		500	1	06/04/13 13:30	06/05/13 14:23	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	ND ug/L		4.0	1	06/10/13 10:00	06/13/13 21:51	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-38-2	
Barium	ND ug/L		0.30	1	06/10/13 10:00	06/13/13 21:51	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 21:51	7440-41-7	
Cadmium	ND ug/L		0.080	1	06/10/13 10:00	06/13/13 21:51	7440-43-9	
Calcium	<b>89.0</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 21:51	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-48-4	
Copper	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-50-8	
Iron	ND ug/L		50.0	1	06/10/13 10:00	06/13/13 21:51	7439-89-6	
Lead	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:51	7439-92-1	
Magnesium	<b>8.7</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 21:51	7439-95-4	
Manganese	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7439-96-5	
Molybdenum	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7439-98-7	
Nickel	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-02-0	
Potassium	ND ug/L		20.0	1	06/10/13 10:00	06/13/13 21:51	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7782-49-2	
Silica	<b>74.7</b> ug/L		53.5	1	06/10/13 10:00	06/13/13 21:51	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 21:51	7440-22-4	
Sodium	<b>384</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 21:51	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:51	7440-28-0	
Total Hardness by 2340B	<b>258</b> ug/L		71.0	1	06/10/13 10:00	06/13/13 21:51		
Vanadium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 21:51	7440-62-2	
Zinc	ND ug/L		5.0	1	06/10/13 10:00	06/13/13 21:51	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		4.0	1	06/10/13 10:02	06/17/13 15:56	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-38-2	
Barium, Dissolved	ND ug/L		0.30	1	06/10/13 10:02	06/17/13 15:56	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 15:56	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	06/10/13 10:02	06/17/13 15:56	7440-43-9	
Calcium, Dissolved	<b>30.3</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:56	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-48-4	
Copper, Dissolved	<b>0.62</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 15:56	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:56	7439-92-1	
Magnesium, Dissolved	<b>8.2</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 15:56	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-FIELD_20130522	Lab ID: 60145450012	Collected: 05/22/13 15:36	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>0.68</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7439-98-7	
Nickel, Dissolved	<b>1.5</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-02-0	
Potassium, Dissolved	<b>23.3</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 15:56	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 15:56	7440-22-4	
Sodium, Dissolved	<b>457</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 15:56	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:56	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 15:56	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	06/10/13 10:02	06/17/13 15:56	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	ND ug/L		50.0	1	06/04/13 13:30	06/05/13 11:12	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-36-0	
Arsenic, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-38-2	
Barium, Dissolved	<b>0.49J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-39-3	B
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:12	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:12	7440-43-9	
Chromium, Dissolved	<b>0.87J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:32	7440-47-3	B
Cobalt, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-48-4	
Copper, Dissolved	<b>0.52J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:32	7440-50-8	B
Iron, Dissolved	<b>16.4J</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 11:12	7439-89-6	B
Lead, Dissolved	<b>0.098J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7439-92-1	B
Manganese, Dissolved	<b>0.37J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7439-96-5	
Molybdenum, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7439-98-7	
Nickel, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 11:12	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 11:12	7440-62-2	
Zinc, Dissolved	<b>3.3J</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 16:32	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:45	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:56	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:33	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	ND umhos/cm		10.0	1			05/30/13 14:49	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	ND mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: FB-FIELD_20130522	Lab ID: 60145450012	Collected: 05/22/13 15:36	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	ND	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	20.0	1		06/05/13 10:21		
Alkalinity, Carbonate (CaCO3)	ND	mg/L	20.0	1		06/05/13 10:21		
Alkalinity, Total as CaCO3	ND	mg/L	20.0	1		06/05/13 10:21		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	5.0	1		05/28/13 09:27		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		05/28/13 11:02		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:28	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 15:26	16887-00-6	
Sulfate	ND	mg/L	1.0	1		06/07/13 15:26	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND	mg/L	0.10	1		05/29/13 11:11		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:52	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND	mg/L	1.0	1		06/11/13 10:18	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: AT-2_20130522	Lab ID: 60145450013	Collected: 05/22/13 13:55	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>175000</b> ug/L		100	1	06/04/13 13:30	06/10/13 12:50	7440-70-2	
Magnesium, Dissolved	<b>15400</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 12:50	7439-95-4	
Potassium, Dissolved	<b>6370</b> ug/L		500	1	06/04/13 13:30	06/10/13 12:50	7440-09-7	
Sodium, Dissolved	<b>12000</b> ug/L		500	1	06/04/13 13:30	06/10/13 12:50	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>6150</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 22:19	7429-90-5	
Antimony	<b>1.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-36-0	
Arsenic	<b>7.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-38-2	
Barium	<b>88.9</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 22:19	7440-39-3	
Beryllium	<b>1.5</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 22:19	7440-41-7	
Cadmium	<b>8.5</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 22:19	7440-43-9	
Calcium	<b>195000</b> ug/L		400	20	06/10/13 10:00	06/13/13 22:25	7440-70-2	
Chromium	<b>8.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-47-3	
Cobalt	<b>4.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-48-4	
Copper	<b>377</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-50-8	
Iron	<b>139000</b> ug/L		1000	20	06/10/13 10:00	06/13/13 22:25	7439-89-6	
Lead	<b>89.1</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:19	7439-92-1	
Magnesium	<b>18400</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 22:19	7439-95-4	
Manganese	<b>2470</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 22:25	7439-96-5	
Molybdenum	<b>25.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7439-98-7	
Nickel	<b>10.0</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-02-0	
Potassium	<b>7130</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 22:19	7440-09-7	
Selenium	<b>0.53</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7782-49-2	
Silica	<b>23900</b> ug/L		1070	20	06/10/13 10:00	06/13/13 22:25	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:19	7440-22-4	
Sodium	<b>11300</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:19	7440-23-5	
Thallium	<b>0.12</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:19	7440-28-0	
Total Hardness by 2340B	<b>562000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 22:25		
Vanadium	<b>8.4</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:19	7440-62-2	
Zinc	<b>1680</b> ug/L		100	20	06/10/13 10:00	06/13/13 22:25	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>9.8</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:01	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-38-2	
Barium, Dissolved	<b>49.7</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:01	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:01	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	06/10/13 10:02	06/17/13 16:01	7440-43-9	
Calcium, Dissolved	<b>193000</b> ug/L		400	20	06/10/13 10:02	06/14/13 06:04	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-48-4	
Copper, Dissolved	<b>4.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-50-8	
Iron, Dissolved	<b>826</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:01	7439-89-6	
Lead, Dissolved	<b>0.24</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:01	7439-92-1	
Magnesium, Dissolved	<b>15000</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:01	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: AT-2_20130522	Lab ID: 60145450013	Collected: 05/22/13 13:55	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>865</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 06:04	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7439-98-7	
Nickel, Dissolved	<b>1.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-02-0	
Potassium, Dissolved	<b>6660</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:01	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:01	7440-22-4	
Sodium, Dissolved	<b>12000</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:01	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:01	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:01	7440-62-2	
Zinc, Dissolved	<b>14.0</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:01	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>1880</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:13	7429-90-5	
Antimony, Dissolved	<b>0.28J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-36-0	
Arsenic, Dissolved	<b>0.85J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-38-2	
Barium, Dissolved	<b>64.9</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:13	7440-39-3	
Beryllium, Dissolved	<b>1.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:08	7440-41-7	
Cadmium, Dissolved	<b>8.5</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:08	7440-43-9	
Chromium, Dissolved	<b>5.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-47-3	
Cobalt, Dissolved	<b>3.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-48-4	
Copper, Dissolved	<b>301</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-50-8	
Iron, Dissolved	<b>59900</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:08	7439-89-6	
Lead, Dissolved	<b>76.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7439-92-1	
Manganese, Dissolved	<b>1700</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7439-96-5	
Molybdenum, Dissolved	<b>1.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7439-98-7	
Nickel, Dissolved	<b>6.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-02-0	
Selenium, Dissolved	<b>0.42J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:08	7440-22-4	
Thallium, Dissolved	<b>0.12J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-28-0	
Vanadium, Dissolved	<b>2.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:08	7440-62-2	
Zinc, Dissolved	<b>1100</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 13:08	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:48	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 10:58	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:35	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1040</b> umhos/cm		10.0	1			05/30/13 14:50	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>665</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: AT-2_20130522	Lab ID: 60145450013	Collected: 05/22/13 13:55	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.51</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		06/05/13 10:25		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		06/05/13 10:25		
Alkalinity, Total as CaCO <sub>3</sub>	ND	mg/L	20.0	1		06/05/13 10:25		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>823</b>	mg/L	5.0	1		05/28/13 09:27		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>260</b>	mg/L	5.0	1		05/28/13 11:03		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:29	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.5</b>	mg/L	1.0	1		06/07/13 15:42	16887-00-6	
Sulfate	<b>494</b>	mg/L	100	100		06/08/13 23:17	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND	mg/L	0.10	1		05/29/13 11:12		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/28/13 16:53	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.7</b>	mg/L	1.0	1		06/11/13 10:35	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: CHV-101S_20130522	Lab ID: 60145450014	Collected: 05/22/13 14:50	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>236000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:03	7440-70-2	M1
Magnesium, Dissolved	<b>22300</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:03	7439-95-4	
Potassium, Dissolved	<b>3300</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:03	7440-09-7	
Sodium, Dissolved	<b>9950</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:03	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>21100</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 22:30	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-36-0	
Arsenic	<b>20.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-38-2	
Barium	<b>605</b> ug/L		6.0	20	06/10/13 10:00	06/13/13 22:36	7440-39-3	
Beryllium	<b>1.6</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 22:30	7440-41-7	
Cadmium	<b>2.1</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 22:30	7440-43-9	
Calcium	<b>270000</b> ug/L		400	20	06/10/13 10:00	06/13/13 22:36	7440-70-2	
Chromium	<b>35.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-47-3	
Cobalt	<b>20.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-48-4	
Copper	<b>48.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-50-8	
Iron	<b>36000</b> ug/L		1000	20	06/10/13 10:00	06/13/13 22:36	7439-89-6	
Lead	<b>45.9</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:30	7439-92-1	
Magnesium	<b>35100</b> ug/L		100	20	06/10/13 10:00	06/13/13 22:36	7439-95-4	
Manganese	<b>6770</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 22:36	7439-96-5	
Molybdenum	<b>9.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7439-98-7	
Nickel	<b>28.5</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-02-0	
Potassium	<b>6820</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 22:30	7440-09-7	
Selenium	<b>1.2</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7782-49-2	
Silica	<b>86200</b> ug/L		1070	20	06/10/13 10:00	06/13/13 22:36	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:30	7440-22-4	
Sodium	<b>10300</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:30	7440-23-5	
Thallium	<b>0.38</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:30	7440-28-0	
Total Hardness by 2340B	<b>818000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 22:36		
Vanadium	<b>41.9</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:30	7440-62-2	
Zinc	<b>398</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 22:30	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>766</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:06	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-36-0	
Arsenic, Dissolved	<b>0.68</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-38-2	
Barium, Dissolved	<b>40.2</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:06	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:06	7440-41-7	
Cadmium, Dissolved	<b>0.20</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:06	7440-43-9	
Calcium, Dissolved	<b>263000</b> ug/L		400	20	06/10/13 10:02	06/14/13 06:15	7440-70-2	
Chromium, Dissolved	<b>1.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-47-3	
Cobalt, Dissolved	<b>0.70</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-48-4	
Copper, Dissolved	<b>3.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-50-8	
Iron, Dissolved	<b>1020</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:06	7439-89-6	
Lead, Dissolved	<b>1.6</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:06	7439-92-1	
Magnesium, Dissolved	<b>20500</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:06	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: CHV-101S_20130522	Lab ID: 60145450014	Collected: 05/22/13 14:50	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>214</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7439-96-5	
Molybdenum, Dissolved	<b>0.78</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7439-98-7	
Nickel, Dissolved	<b>1.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-02-0	
Potassium, Dissolved	<b>2820</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:06	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:06	7440-22-4	
Sodium, Dissolved	<b>9990</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:06	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:06	7440-28-0	
Vanadium, Dissolved	<b>1.5</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:06	7440-62-2	
Zinc, Dissolved	<b>32.5</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:06	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>5050</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:16	7429-90-5	
Antimony, Dissolved	<b>0.066J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-36-0	
Arsenic, Dissolved	<b>2.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-38-2	
Barium, Dissolved	<b>59.6</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:16	7440-39-3	
Beryllium, Dissolved	<b>1.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:12	7440-41-7	
Cadmium, Dissolved	<b>1.8</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:12	7440-43-9	
Chromium, Dissolved	<b>17.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-47-3	
Cobalt, Dissolved	<b>8.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-48-4	
Copper, Dissolved	<b>23.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-50-8	
Iron, Dissolved	<b>9400</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:12	7439-89-6	
Lead, Dissolved	<b>10.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7439-92-1	
Manganese, Dissolved	<b>2540</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7439-96-5	
Molybdenum, Dissolved	<b>0.31J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7439-98-7	
Nickel, Dissolved	<b>12.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-02-0	
Selenium, Dissolved	<b>0.78J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7782-49-2	
Silver, Dissolved	<b>0.18J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:12	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-28-0	
Vanadium, Dissolved	<b>8.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:12	7440-62-2	
Zinc, Dissolved	<b>267</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 13:12	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:50	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:00	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:37	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1280</b> umhos/cm		10.0	1			05/30/13 14:51	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>820</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: CHV-101S_20130522	Lab ID: 60145450014	Collected: 05/22/13 14:50	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.64</b>	PSU	0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>168</b>	mg/L	20.0	1		06/05/13 10:29		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND	mg/L	20.0	1		06/05/13 10:29		
Alkalinity, Total as CaCO <sub>3</sub>	<b>168</b>	mg/L	20.0	1		06/05/13 10:29		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>928</b>	mg/L	5.0	1		05/28/13 09:28		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>598</b>	mg/L	5.0	1		05/28/13 11:03		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND	mg/L	0.050	1		05/26/13 17:29 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND	mg/L	1.0	1		06/07/13 15:57 16887-00-6		
Sulfate	<b>543</b>	mg/L	100	100		06/09/13 00:03 14808-79-8		
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	<b>0.26</b>	mg/L	0.10	1		05/29/13 11:13		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND	mg/L	0.0050	1		05/29/13 14:24 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>2.7</b>	mg/L	1.0	1		06/11/13 10:44 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-3_20130522	Lab ID: 60145450015	Collected: 05/22/13 10:15	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>127000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:09	7440-70-2	
Magnesium, Dissolved	<b>17400</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:09	7439-95-4	
Potassium, Dissolved	<b>2760</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:09	7440-09-7	
Sodium, Dissolved	<b>2870</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:09	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>12000</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 22:41	7429-90-5	M1
Antimony	<b>0.62</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-36-0	
Arsenic	<b>20.7</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-38-2	
Barium	<b>223</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 22:41	7440-39-3	
Beryllium	<b>0.57</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 22:41	7440-41-7	
Cadmium	<b>1.7</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 22:41	7440-43-9	
Calcium	<b>148000</b> ug/L		400	20	06/10/13 10:00	06/13/13 22:47	7440-70-2	M1
Chromium	<b>15.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-47-3	
Cobalt	<b>8.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-48-4	
Copper	<b>80.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-50-8	
Iron	<b>20800</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:41	7439-89-6	M1
Lead	<b>179</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:41	7439-92-1	
Magnesium	<b>22200</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 22:41	7439-95-4	M1
Manganese	<b>1380</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 22:47	7439-96-5	M1
Molybdenum	<b>3.2</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7439-98-7	
Nickel	<b>12.0</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-02-0	
Potassium	<b>4570</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 22:41	7440-09-7	M1
Selenium	<b>11.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7782-49-2	
Silica	<b>52000</b> ug/L		1070	20	06/10/13 10:00	06/13/13 22:47	7631-86-9	
Silver	<b>0.92</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:41	7440-22-4	
Sodium	<b>3190</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:41	7440-23-5	
Thallium	<b>0.25</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:41	7440-28-0	
Total Hardness by 2340B	<b>460000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 22:47		
Vanadium	<b>25.6</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:41	7440-62-2	
Zinc	<b>425</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 22:41	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>209</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:11	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-36-0	
Arsenic, Dissolved	<b>0.52</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-38-2	
Barium, Dissolved	<b>32.4</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:11	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:11	7440-41-7	
Cadmium, Dissolved	<b>0.25</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:11	7440-43-9	
Calcium, Dissolved	<b>144000</b> ug/L		400	20	06/10/13 10:02	06/14/13 06:25	7440-70-2	
Chromium, Dissolved	<b>0.63</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-48-4	
Copper, Dissolved	<b>3.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-50-8	
Iron, Dissolved	<b>341</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:11	7439-89-6	
Lead, Dissolved	<b>2.9</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:11	7439-92-1	
Magnesium, Dissolved	<b>15400</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:11	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-3_20130522	Lab ID: 60145450015	Collected: 05/22/13 10:15	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>50.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7439-96-5	
Molybdenum, Dissolved	<b>0.68</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7439-98-7	
Nickel, Dissolved	<b>4.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-02-0	
Potassium, Dissolved	<b>2490</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:11	7440-09-7	
Selenium, Dissolved	<b>8.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:11	7440-22-4	
Sodium, Dissolved	<b>2780</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:11	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:11	7440-28-0	
Vanadium, Dissolved	<b>0.44</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:11	7440-62-2	
Zinc, Dissolved	<b>25.7</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:11	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>5030</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:18	7429-90-5	
Antimony, Dissolved	<b>0.32J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-36-0	
Arsenic, Dissolved	<b>9.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-38-2	
Barium, Dissolved	<b>114</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:18	7440-39-3	
Beryllium, Dissolved	<b>0.41J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:17	7440-41-7	
Cadmium, Dissolved	<b>3.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:17	7440-43-9	
Chromium, Dissolved	<b>9.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-47-3	
Cobalt, Dissolved	<b>9.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-48-4	
Copper, Dissolved	<b>86.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-50-8	
Iron, Dissolved	<b>11900</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:17	7439-89-6	
Lead, Dissolved	<b>148</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7439-92-1	
Manganese, Dissolved	<b>2460</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7439-96-5	M1
Molybdenum, Dissolved	<b>0.46J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7439-98-7	
Nickel, Dissolved	<b>10.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-02-0	
Selenium, Dissolved	<b>9.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7782-49-2	
Silver, Dissolved	<b>1.4</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:17	7440-22-4	
Thallium, Dissolved	<b>0.11J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-28-0	
Vanadium, Dissolved	<b>11.7</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:17	7440-62-2	
Zinc, Dissolved	<b>480</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 13:17	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:53	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:03	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:39	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>747</b> umhos/cm		10.0	1			05/30/13 14:52	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>478</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: GW-3_20130522	Lab ID: 60145450015	Collected: 05/22/13 10:15	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.36</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>189</b> mg/L		20.0	1		06/05/13 10:32		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/05/13 10:32		
Alkalinity, Total as CaCO3	<b>189</b> mg/L		20.0	1		06/05/13 10:32		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>547</b> mg/L		5.0	1		05/28/13 09:28		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>220</b> mg/L		5.0	1		05/28/13 11:04		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/26/13 17:30 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	<b>1.7</b> mg/L		1.0	1		06/07/13 16:12 16887-00-6		
Sulfate	<b>224</b> mg/L		20.0	20		06/09/13 00:18 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:17		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:27 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>1.6</b> mg/L		1.0	1		06/11/13 10:52 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-5\_20130523      Lab ID: 60145450016      Collected: 05/23/13 10:17      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>264000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:12	7440-70-2	
Magnesium, Dissolved	<b>20900</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:12	7439-95-4	
Potassium, Dissolved	<b>4900</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:12	7440-09-7	
Sodium, Dissolved	<b>13300</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:12	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>38.4</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 22:59	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-38-2	
Barium	<b>20.7</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 22:59	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 22:59	7440-41-7	
Cadmium	<b>8.8</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 22:59	7440-43-9	
Calcium	<b>282000</b> ug/L		400	20	06/10/13 10:00	06/13/13 23:05	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-47-3	
Cobalt	<b>1.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-48-4	
Copper	<b>6.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-50-8	
Iron	<b>550</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:59	7439-89-6	
Lead	<b>0.69</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 22:59	7439-92-1	
Magnesium	<b>20900</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 22:59	7439-95-4	
Manganese	<b>1440</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 23:05	7439-96-5	
Molybdenum	<b>14.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7439-98-7	
Nickel	<b>2.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-02-0	
Potassium	<b>4850</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 22:59	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7782-49-2	
Silica	<b>17700</b> ug/L		1070	20	06/10/13 10:00	06/13/13 23:05	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 22:59	7440-22-4	
Sodium	<b>12100</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 22:59	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 22:59	7440-28-0	
Total Hardness by 2340B	<b>789000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 23:05		
Vanadium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 22:59	7440-62-2	
Zinc	<b>1420</b> ug/L		100	20	06/10/13 10:00	06/13/13 23:05	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>8.0</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:39	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-38-2	
Barium, Dissolved	<b>21.2</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:39	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:39	7440-41-7	
Cadmium, Dissolved	<b>5.6</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:39	7440-43-9	
Calcium, Dissolved	<b>289000</b> ug/L		400	20	06/10/13 10:02	06/14/13 06:35	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-47-3	
Cobalt, Dissolved	<b>2.0</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-48-4	
Copper, Dissolved	<b>1.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 16:39	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:39	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-5\_20130523      Lab ID: 60145450016      Collected: 05/23/13 10:17      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>21300</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:39	7439-95-4	
Manganese, Dissolved	<b>1490</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 06:35	7439-96-5	
Molybdenum, Dissolved	<b>15.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7439-98-7	
Nickel, Dissolved	<b>7.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-02-0	
Potassium, Dissolved	<b>4980</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:39	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:39	7440-22-4	
Sodium, Dissolved	<b>12800</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:39	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:39	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:39	7440-62-2	
Zinc, Dissolved	<b>1340</b> ug/L		100	20	06/10/13 10:02	06/14/13 06:35	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>36.8J</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:30	7429-90-5	
Antimony, Dissolved	<b>0.16J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-36-0	
Arsenic, Dissolved	<b>0.19J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-38-2	
Barium, Dissolved	<b>19.4</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:30	7440-39-3	
Beryllium, Dissolved	<b>0.10J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:34	7440-41-7	
Cadmium, Dissolved	<b>9.6</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:34	7440-43-9	
Chromium, Dissolved	<b>0.58J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:50	7440-47-3	B
Cobalt, Dissolved	<b>1.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-48-4	
Copper, Dissolved	<b>7.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-50-8	
Iron, Dissolved	<b>595</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:34	7439-89-6	
Lead, Dissolved	<b>0.81J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7439-92-1	B
Manganese, Dissolved	<b>1450</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7439-96-5	
Molybdenum, Dissolved	<b>15.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7439-98-7	
Nickel, Dissolved	<b>3.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:34	7440-22-4	
Thallium, Dissolved	<b>0.087J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:34	7440-62-2	
Zinc, Dissolved	<b>1330</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 13:34	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 16:55	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:05	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:42	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1410</b> umhos/cm		10.0	1			05/30/13 14:57	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-5\_20130523      Lab ID: 60145450016      Collected: 05/23/13 10:17      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>900</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.70</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>111</b> mg/L		20.0	1		06/06/13 17:15		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/06/13 17:15		
Alkalinity, Total as CaCO <sub>3</sub>	<b>111</b> mg/L		20.0	1		06/06/13 17:15		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>868</b> mg/L		5.0	1		05/29/13 15:31		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>5.0</b> mg/L		5.0	1		05/28/13 18:20		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:10	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 16:28	16887-00-6	
Sulfate	<b>658</b> mg/L		100	100		06/09/13 00:34	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:19		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:27	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/11/13 11:17	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-4\_20130523      Lab ID: 60145450017      Collected: 05/23/13 10:31      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>248000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:21	7440-70-2	
Magnesium, Dissolved	<b>19600</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:21	7439-95-4	
Potassium, Dissolved	<b>4590</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:21	7440-09-7	
Sodium, Dissolved	<b>12600</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:21	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>233</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 23:28	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-36-0	
Arsenic	<b>0.56</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-38-2	
Barium	<b>20.1</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 23:28	7440-39-3	
Beryllium	<b>0.35</b> ug/L		0.20	1	06/10/13 10:00	06/13/13 23:28	7440-41-7	
Cadmium	<b>11.3</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 23:28	7440-43-9	
Calcium	<b>273000</b> ug/L		400	20	06/10/13 10:00	06/13/13 23:33	7440-70-2	
Chromium	<b>0.96</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-47-3	
Cobalt	<b>2.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-48-4	
Copper	<b>40.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-50-8	
Iron	<b>2630</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:28	7439-89-6	
Lead	<b>4.6</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:28	7439-92-1	
Magnesium	<b>19500</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:28	7439-95-4	
Manganese	<b>1590</b> ug/L		10.0	20	06/10/13 10:00	06/13/13 23:33	7439-96-5	
Molybdenum	<b>15.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7439-98-7	
Nickel	<b>3.2</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-02-0	
Potassium	<b>4620</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:28	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7782-49-2	
Silica	<b>17800</b> ug/L		1070	20	06/10/13 10:00	06/13/13 23:33	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:28	7440-22-4	
Sodium	<b>11600</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:28	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 23:28	7440-28-0	
Total Hardness by 2340B	<b>763000</b> ug/L		1420	20	06/10/13 10:00	06/13/13 23:33		
Vanadium	<b>0.13</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:28	7440-62-2	
Zinc	<b>2220</b> ug/L		100	20	06/10/13 10:00	06/13/13 23:33	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>11.4</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:44	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-38-2	
Barium, Dissolved	<b>20.0</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:44	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:44	7440-41-7	
Cadmium, Dissolved	<b>9.6</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:44	7440-43-9	
Calcium, Dissolved	<b>266000</b> ug/L		400	20	06/10/13 10:02	06/14/13 07:03	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-47-3	
Cobalt, Dissolved	<b>2.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-48-4	
Copper, Dissolved	<b>2.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 16:44	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:44	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-4\_20130523      Lab ID: 60145450017      Collected: 05/23/13 10:31      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>19300</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:44	7439-95-4	
Manganese, Dissolved	<b>1550</b> ug/L		10.0	20	06/10/13 10:02	06/14/13 07:03	7439-96-5	
Molybdenum, Dissolved	<b>15.3</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7439-98-7	
Nickel, Dissolved	<b>4.1</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-02-0	
Potassium, Dissolved	<b>4590</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:44	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:44	7440-22-4	
Sodium, Dissolved	<b>12100</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:44	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:44	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:44	7440-62-2	
Zinc, Dissolved	<b>1720</b> ug/L		100	20	06/10/13 10:02	06/14/13 07:03	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>210</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:42	7429-90-5	
Antimony, Dissolved	<b>0.24J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-36-0	
Arsenic, Dissolved	<b>0.62J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-38-2	
Barium, Dissolved	<b>18.6</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:42	7440-39-3	
Beryllium, Dissolved	<b>0.32J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:51	7440-41-7	
Cadmium, Dissolved	<b>12.0</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:51	7440-43-9	
Chromium, Dissolved	<b>1.2</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 16:53	7440-47-3	B
Cobalt, Dissolved	<b>2.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-48-4	
Copper, Dissolved	<b>41.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-50-8	
Iron, Dissolved	<b>2800</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:51	7439-89-6	
Lead, Dissolved	<b>5.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7439-92-1	
Manganese, Dissolved	<b>1580</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7439-96-5	
Molybdenum, Dissolved	<b>17.1</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7439-98-7	
Nickel, Dissolved	<b>3.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:51	7440-22-4	
Thallium, Dissolved	<b>0.10J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:51	7440-62-2	
Zinc, Dissolved	<b>2080</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 13:51	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 17:03	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:11	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:44	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1310</b> umhos/cm		10.0	1			05/30/13 14:58	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-4\_20130523      Lab ID: 60145450017      Collected: 05/23/13 10:31      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>839</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.65</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>94.2</b> mg/L		20.0	1		06/06/13 17:23		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/06/13 17:23		
Alkalinity, Total as CaCO <sub>3</sub>	<b>94.2</b> mg/L		20.0	1		06/06/13 17:23		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>864</b> mg/L		5.0	1		05/29/13 15:32		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>6.0</b> mg/L		5.0	1		05/28/13 18:21		D6
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:11	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 17:14	16887-00-6	
Sulfate	<b>634</b> mg/L		100	100		06/09/13 00:49	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:21		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:28	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/11/13 11:25	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-7\_20130523      Lab ID: 60145450018      Collected: 05/23/13 10:00      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>23400</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:25	7440-70-2	
Magnesium, Dissolved	<b>3620</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:25	7439-95-4	
Potassium, Dissolved	<b>726</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:25	7440-09-7	
Sodium, Dissolved	<b>2060</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:25	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>377</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 23:38	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-38-2	
Barium	<b>36.7</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 23:38	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 23:38	7440-41-7	
Cadmium	<b>0.16</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 23:38	7440-43-9	
Calcium	<b>26900</b> ug/L		400	20	06/10/13 10:00	06/13/13 23:43	7440-70-2	
Chromium	<b>0.90</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-48-4	
Copper	<b>1.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-50-8	
Iron	<b>358</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:38	7439-89-6	
Lead	<b>0.45</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:38	7439-92-1	
Magnesium	<b>3720</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:38	7439-95-4	
Manganese	<b>39.6</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7439-96-5	
Molybdenum	<b>0.67</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7439-98-7	
Nickel	<b>0.77</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-02-0	
Potassium	<b>842</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:38	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7782-49-2	
Silica	<b>7220</b> ug/L		1070	20	06/10/13 10:00	06/13/13 23:43	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:38	7440-22-4	
Sodium	<b>1830</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:38	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 23:38	7440-28-0	
Total Hardness by 2340B	<b>82600</b> ug/L		1420	20	06/10/13 10:00	06/13/13 23:43		
Vanadium	<b>0.81</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:38	7440-62-2	
Zinc	<b>23.7</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:38	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>29.7</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:49	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-38-2	
Barium, Dissolved	<b>33.2</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:49	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:49	7440-41-7	
Cadmium, Dissolved	<b>0.13</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:49	7440-43-9	
Calcium, Dissolved	<b>25300</b> ug/L		400	20	06/10/13 10:02	06/14/13 07:13	7440-70-2	
Chromium, Dissolved	<b>0.68</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-48-4	
Copper, Dissolved	<b>2.7</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:02	06/17/13 16:49	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:49	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-7\_20130523      Lab ID: 60145450018      Collected: 05/23/13 10:00      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>3580</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:49	7439-95-4	
Manganese, Dissolved	<b>33.8</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7439-96-5	
Molybdenum, Dissolved	<b>0.77</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7439-98-7	
Nickel, Dissolved	<b>4.4</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-02-0	
Potassium, Dissolved	<b>764</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:49	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:49	7440-22-4	
Sodium, Dissolved	<b>1920</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:49	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:49	7440-28-0	
Vanadium, Dissolved	<b>0.21</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:49	7440-62-2	
Zinc, Dissolved	<b>20.7</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:49	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>114</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:45	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-36-0	
Arsenic, Dissolved	<b>0.36J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-38-2	
Barium, Dissolved	<b>33.0</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:45	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:55	7440-41-7	
Cadmium, Dissolved	<b>0.17J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:55	7440-43-9	
Chromium, Dissolved	<b>0.76J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:02	7440-47-3	B
Cobalt, Dissolved	<b>0.15J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-48-4	
Copper, Dissolved	<b>1.8</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:02	7440-50-8	B
Iron, Dissolved	<b>210</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:55	7439-89-6	
Lead, Dissolved	<b>0.55J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7439-92-1	B
Manganese, Dissolved	<b>40.9</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7439-96-5	
Molybdenum, Dissolved	<b>0.60J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7439-98-7	
Nickel, Dissolved	<b>0.68J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:55	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-28-0	
Vanadium, Dissolved	<b>0.43J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:55	7440-62-2	
Zinc, Dissolved	<b>22.5</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 17:02	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 17:05	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:13	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:46	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>170</b> umhos/cm		10.0	1			05/30/13 15:00	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-7\_20130523      Lab ID: 60145450018      Collected: 05/23/13 10:00      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>109</b> mg/L		6.4	1		05/31/13 10:45		
Salinity (as seawater)	<b>0.083</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>41.6</b> mg/L		20.0	1		06/06/13 17:27		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/06/13 17:27		
Alkalinity, Total as CaCO <sub>3</sub>	<b>41.6</b> mg/L		20.0	1		06/06/13 17:27		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>109</b> mg/L		5.0	1		05/29/13 15:33		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>16.0</b> mg/L		5.0	1		05/28/13 18:22		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:11	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 17:30	16887-00-6	
Sulfate	<b>32.4</b> mg/L		5.0	5		06/09/13 01:04	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:22		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:31	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>5.8</b> mg/L		1.0	1		06/11/13 11:35	7440-44-0	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-G_20130523	Lab ID: 60145450019	Collected: 05/23/13 09:05	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>20500</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:28	7440-70-2	
Magnesium, Dissolved	<b>2940</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:28	7439-95-4	
Potassium, Dissolved	<b>464J</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:28	7440-09-7	
Sodium, Dissolved	<b>1360</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:28	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>723</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 23:48	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-36-0	
Arsenic	<b>0.60</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-38-2	
Barium	<b>50.1</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 23:48	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 23:48	7440-41-7	
Cadmium	<b>0.18</b> ug/L		0.080	1	06/10/13 10:00	06/13/13 23:48	7440-43-9	
Calcium	<b>21600</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:48	7440-70-2	
Chromium	<b>0.97</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-48-4	
Copper	<b>2.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-50-8	
Iron	<b>784</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:48	7439-89-6	
Lead	<b>1.7</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:48	7439-92-1	
Magnesium	<b>3080</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:48	7439-95-4	
Manganese	<b>44.4</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7439-96-5	
Molybdenum	<b>0.55</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7439-98-7	
Nickel	<b>1.1</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-02-0	
Potassium	<b>690</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:48	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7782-49-2	
Silica	<b>7170</b> ug/L		1070	20	06/10/13 10:00	06/13/13 23:53	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:48	7440-22-4	
Sodium	<b>1160</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:48	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 23:48	7440-28-0	
Total Hardness by 2340B	<b>66600</b> ug/L		71.0	1	06/10/13 10:00	06/13/13 23:48		
Vanadium	<b>1.7</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:48	7440-62-2	
Zinc	<b>32.6</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:48	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>51.5</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:54	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-38-2	
Barium, Dissolved	<b>41.1</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:54	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:54	7440-41-7	
Cadmium, Dissolved	<b>0.10</b> ug/L		0.080	1	06/10/13 10:02	06/17/13 16:54	7440-43-9	
Calcium, Dissolved	<b>19400</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:54	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-48-4	
Copper, Dissolved	<b>1.6</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-50-8	
Iron, Dissolved	<b>53.6</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:54	7439-89-6	
Lead, Dissolved	<b>0.11</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:54	7439-92-1	
Magnesium, Dissolved	<b>2760</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:54	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-G_20130523	Lab ID: 60145450019	Collected: 05/23/13 09:05	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>13.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7439-98-7	
Nickel, Dissolved	<b>0.64</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-02-0	
Potassium, Dissolved	<b>498</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:54	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:54	7440-22-4	
Sodium, Dissolved	<b>1200</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:54	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:54	7440-28-0	
Vanadium, Dissolved	<b>0.24</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:54	7440-62-2	
Zinc, Dissolved	<b>17.5</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:54	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>157</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:48	7429-90-5	
Antimony, Dissolved	<b>0.039J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-36-0	
Arsenic, Dissolved	<b>0.32J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-38-2	
Barium, Dissolved	<b>44.1</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:48	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:59	7440-41-7	
Cadmium, Dissolved	<b>0.22J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 13:59	7440-43-9	
Chromium, Dissolved	<b>1.3</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:05	7440-47-3	B
Cobalt, Dissolved	<b>0.24J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-48-4	
Copper, Dissolved	<b>2.4</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:05	7440-50-8	B
Iron, Dissolved	<b>325</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 13:59	7439-89-6	
Lead, Dissolved	<b>1.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7439-92-1	
Manganese, Dissolved	<b>48.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7439-96-5	
Molybdenum, Dissolved	<b>0.37J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7439-98-7	
Nickel, Dissolved	<b>0.76J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 13:59	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-28-0	
Vanadium, Dissolved	<b>0.70J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 13:59	7440-62-2	
Zinc, Dissolved	<b>29.4</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 17:05	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 17:08	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:15	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:53	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>134</b> umhos/cm		10.0	1			05/30/13 15:01	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>85.6</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-G_20130523	Lab ID: 60145450019	Collected: 05/23/13 09:05	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.067</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>40.8</b> mg/L		20.0	1		06/06/13 17:31		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/06/13 17:31		
Alkalinity, Total as CaCO3	<b>40.8</b> mg/L		20.0	1		06/06/13 17:31		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>78.0</b> mg/L		5.0	1		05/29/13 15:33		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>18.0</b> mg/L		5.0	1		05/28/13 18:23		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:11 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 17:45 16887-00-6		
Sulfate	<b>14.7</b> mg/L		1.0	1		06/07/13 17:45 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:23		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:32 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>5.4</b> mg/L		1.0	1		06/11/13 11:44 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-2_20130523	Lab ID: 60145450020	Collected: 05/23/13 10:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>17500</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:31	7440-70-2	
Magnesium, Dissolved	<b>2580</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:31	7439-95-4	
Potassium, Dissolved	<b>453J</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:31	7440-09-7	
Sodium, Dissolved	<b>1310</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:31	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>464</b> ug/L		4.0	1	06/10/13 10:00	06/13/13 23:58	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-38-2	
Barium	<b>39.1</b> ug/L		0.30	1	06/10/13 10:00	06/13/13 23:58	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:00	06/13/13 23:58	7440-41-7	
Cadmium	ND ug/L		0.080	1	06/10/13 10:00	06/13/13 23:58	7440-43-9	
Calcium	<b>18400</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:58	7440-70-2	
Chromium	<b>1.3</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-48-4	
Copper	<b>1.9</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-50-8	
Iron	<b>440</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:58	7439-89-6	
Lead	<b>0.57</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:58	7439-92-1	
Magnesium	<b>2730</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:58	7439-95-4	
Manganese	<b>19.8</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7439-96-5	
Molybdenum	<b>0.54</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7439-98-7	
Nickel	<b>1.0</b> ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-02-0	
Potassium	<b>576</b> ug/L		20.0	1	06/10/13 10:00	06/13/13 23:58	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7782-49-2	
Silica	<b>6580</b> ug/L		1070	20	06/10/13 10:00	06/14/13 00:03	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:00	06/13/13 23:58	7440-22-4	
Sodium	<b>1080</b> ug/L		50.0	1	06/10/13 10:00	06/13/13 23:58	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:00	06/13/13 23:58	7440-28-0	
Total Hardness by 2340B	<b>57200</b> ug/L		71.0	1	06/10/13 10:00	06/13/13 23:58		
Vanadium	<b>0.98</b> ug/L		0.10	1	06/10/13 10:00	06/13/13 23:58	7440-62-2	
Zinc	<b>5.7</b> ug/L		5.0	1	06/10/13 10:00	06/13/13 23:58	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>43.7</b> ug/L		4.0	1	06/10/13 10:02	06/17/13 16:59	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-38-2	
Barium, Dissolved	<b>33.8</b> ug/L		0.30	1	06/10/13 10:02	06/17/13 16:59	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:02	06/17/13 16:59	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	06/10/13 10:02	06/17/13 16:59	7440-43-9	
Calcium, Dissolved	<b>16800</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:59	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-48-4	
Copper, Dissolved	<b>1.6</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-50-8	
Iron, Dissolved	<b>79.3</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:59	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:59	7439-92-1	
Magnesium, Dissolved	<b>2610</b> ug/L		5.0	1	06/10/13 10:02	06/17/13 16:59	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-2_20130523	Lab ID: 60145450020	Collected: 05/23/13 10:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>9.2</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7439-98-7	
Nickel, Dissolved	<b>0.78</b> ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-02-0	
Potassium, Dissolved	<b>466</b> ug/L		20.0	1	06/10/13 10:02	06/17/13 16:59	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:02	06/17/13 16:59	7440-22-4	
Sodium, Dissolved	<b>1150</b> ug/L		50.0	1	06/10/13 10:02	06/17/13 16:59	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:02	06/17/13 16:59	7440-28-0	
Vanadium, Dissolved	<b>0.16</b> ug/L		0.10	1	06/10/13 10:02	06/17/13 16:59	7440-62-2	
Zinc, Dissolved	ND ug/L		5.0	1	06/10/13 10:02	06/17/13 16:59	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>116</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:51	7429-90-5	
Antimony, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-36-0	
Arsenic, Dissolved	<b>0.27J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-38-2	
Barium, Dissolved	<b>33.9</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:51	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:03	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:03	7440-43-9	
Chromium, Dissolved	<b>0.73J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:08	7440-47-3	B
Cobalt, Dissolved	<b>0.13J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-48-4	
Copper, Dissolved	<b>2.0</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:08	7440-50-8	B
Iron, Dissolved	<b>192</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:03	7439-89-6	
Lead, Dissolved	<b>0.50J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7439-92-1	B
Manganese, Dissolved	<b>17.4</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7439-96-5	
Molybdenum, Dissolved	<b>0.44J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7439-98-7	
Nickel, Dissolved	<b>0.71J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:03	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-28-0	
Vanadium, Dissolved	<b>0.28J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:03	7440-62-2	
Zinc, Dissolved	<b>6.1J</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 17:08	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/08/13 12:01	06/09/13 17:10	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/08/13 12:04	06/10/13 11:17	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:55	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>113</b> umhos/cm		10.0	1			05/30/13 15:02	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>72.3</b> mg/L		6.4	1			05/31/13 10:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-2_20130523	Lab ID: 60145450020	Collected: 05/23/13 10:10	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.057</b> PSU		0.014	1		05/31/13 10:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>35.7</b> mg/L		20.0	1		06/06/13 17:36		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/06/13 17:36		
Alkalinity, Total as CaCO <sub>3</sub>	<b>35.7</b> mg/L		20.0	1		06/06/13 17:36		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>72.0</b> mg/L		5.0	1		05/29/13 15:34		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>23.0</b> mg/L		5.0	1		05/28/13 18:23		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:12 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 18:00 16887-00-6		
Sulfate	<b>14.1</b> mg/L		1.0	1		06/07/13 18:00 14808-79-8		
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:23		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:35 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>5.9</b> mg/L		1.0	1		06/11/13 11:54 7440-44-0		

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-4-SW_20130523	Lab ID: 60145450021	Collected: 05/23/13 09:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>20000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:34	7440-70-2	
Magnesium, Dissolved	<b>2910</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:34	7439-95-4	
Potassium, Dissolved	<b>460J</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:34	7440-09-7	
Sodium, Dissolved	<b>1330</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:34	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>344</b> ug/L		4.0	1	06/10/13 10:04	06/18/13 07:46	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-38-2	
Barium	<b>39.5</b> ug/L		0.30	1	06/10/13 10:04	06/18/13 07:46	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:04	06/18/13 07:46	7440-41-7	
Cadmium	<b>0.18</b> ug/L		0.080	1	06/10/13 10:04	06/18/13 07:46	7440-43-9	
Calcium	<b>18500</b> ug/L		20.0	1	06/10/13 10:04	06/18/13 07:46	7440-70-2	
Chromium	<b>0.63</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-48-4	
Copper	<b>1.7</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-50-8	
Iron	<b>355</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 07:46	7439-89-6	
Lead	<b>0.74</b> ug/L		0.10	1	06/10/13 10:04	06/18/13 07:46	7439-92-1	
Magnesium	<b>2950</b> ug/L		5.0	1	06/10/13 10:04	06/18/13 07:46	7439-95-4	
Manganese	<b>25.8</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7439-96-5	
Molybdenum	<b>0.52</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7439-98-7	
Nickel	<b>0.66</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-02-0	
Potassium	<b>564</b> ug/L		20.0	1	06/10/13 10:04	06/18/13 07:46	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7782-49-2	
Silica	<b>6660</b> ug/L		1070	20	06/10/13 10:04	06/18/13 07:50	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:46	7440-22-4	
Sodium	<b>1120</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 07:46	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:04	06/18/13 07:46	7440-28-0	
Total Hardness by 2340B	<b>58400</b> ug/L		71.0	1	06/10/13 10:04	06/18/13 07:46		
Vanadium	<b>0.75</b> ug/L		0.10	1	06/10/13 10:04	06/18/13 07:46	7440-62-2	
Zinc	<b>37.2</b> ug/L		5.0	1	06/10/13 10:04	06/18/13 07:46	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>28.2</b> ug/L		4.0	1	06/10/13 10:03	06/14/13 16:57	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-38-2	
Barium, Dissolved	<b>35.4</b> ug/L		0.30	1	06/10/13 10:03	06/14/13 16:57	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:03	06/14/13 16:57	7440-41-7	
Cadmium, Dissolved	<b>0.17</b> ug/L		0.080	1	06/10/13 10:03	06/14/13 16:57	7440-43-9	
Calcium, Dissolved	<b>19900</b> ug/L		20.0	1	06/10/13 10:03	06/14/13 16:57	7440-70-2	
Chromium, Dissolved	<b>0.58</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-48-4	
Copper, Dissolved	<b>2.1</b> ug/L		0.50	1	06/10/13 10:03	06/17/13 11:39	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:03	06/14/13 16:57	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 16:57	7439-92-1	
Magnesium, Dissolved	<b>2800</b> ug/L		5.0	1	06/10/13 10:03	06/14/13 16:57	7439-95-4	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-4-SW_20130523	Lab ID: 60145450021	Collected: 05/23/13 09:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Manganese, Dissolved	<b>16.2</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7439-96-5	
Molybdenum, Dissolved	<b>0.56</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7439-98-7	
Nickel, Dissolved	<b>0.68</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-02-0	
Potassium, Dissolved	<b>488</b> ug/L		20.0	1	06/10/13 10:03	06/14/13 16:57	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 16:57	7440-22-4	
Sodium, Dissolved	<b>1170</b> ug/L		50.0	1	06/10/13 10:03	06/14/13 16:57	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 16:57	7440-28-0	
Vanadium, Dissolved	<b>0.20</b> ug/L		0.10	1	06/10/13 10:03	06/14/13 16:57	7440-62-2	
Zinc, Dissolved	<b>33.2</b> ug/L		5.0	1	06/10/13 10:03	06/14/13 16:57	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>133</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:54	7429-90-5	
Antimony, Dissolved	<b>0.036J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-36-0	
Arsenic, Dissolved	<b>0.34J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-38-2	
Barium, Dissolved	<b>38.0</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:54	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:07	7440-41-7	
Cadmium, Dissolved	<b>0.23J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 14:07	7440-43-9	
Chromium, Dissolved	<b>0.81J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:11	7440-47-3	B
Cobalt, Dissolved	<b>0.17J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-48-4	
Copper, Dissolved	<b>2.3</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:11	7440-50-8	B
Iron, Dissolved	<b>265</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:07	7439-89-6	
Lead, Dissolved	<b>0.82J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7439-92-1	B
Manganese, Dissolved	<b>31.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7439-96-5	
Molybdenum, Dissolved	<b>0.44J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7439-98-7	
Nickel, Dissolved	<b>0.75J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:07	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-28-0	
Vanadium, Dissolved	<b>0.30J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:07	7440-62-2	
Zinc, Dissolved	<b>37.1</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 17:11	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:51	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:40	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:57	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>142</b> umhos/cm		10.0	1			05/31/13 10:29	
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>90.6</b> mg/L		6.4	1			05/31/13 11:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

Sample: DR-4-SW_20130523	Lab ID: 60145450021	Collected: 05/23/13 09:30	Received: 05/24/13 10:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as seawater)	<b>0.070</b> PSU		0.014	1		05/31/13 11:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>39.0</b> mg/L		20.0	1		06/06/13 17:40		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/06/13 17:40		
Alkalinity, Total as CaCO3	<b>39.0</b> mg/L		20.0	1		06/06/13 17:40		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>83.0</b> mg/L		5.0	1		05/29/13 15:34		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>25.0</b> mg/L		5.0	1		05/28/13 18:23		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:12 18496-25-8		
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 21:05 16887-00-6		
Sulfate	<b>16.4</b> mg/L		1.0	1		06/07/13 21:05 14808-79-8		
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	ND mg/L		0.10	1		05/29/13 11:26		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:36 57-12-5		
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>5.8</b> mg/L		1.0	1		06/11/13 12:03 7440-44-0		

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-11\_20130523      Lab ID: 60145450022      Collected: 05/23/13 10:14      Received: 05/24/13 10:15      Matrix: Water**

Comments: • BP Anderson Tech Specs Apply  
• All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>16800</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:37	7440-70-2	
Magnesium, Dissolved	<b>2600</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:37	7439-95-4	
Potassium, Dissolved	<b>419J</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:37	7440-09-7	
Sodium, Dissolved	<b>1210</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:37	7440-23-5	B
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>408</b> ug/L		4.0	1	06/10/13 10:04	06/18/13 07:55	7429-90-5	M1
Antimony	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-38-2	
Barium	<b>37.7</b> ug/L		0.30	1	06/10/13 10:04	06/18/13 07:55	7440-39-3	
Beryllium	ND ug/L		0.20	1	06/10/13 10:04	06/18/13 07:55	7440-41-7	
Cadmium	ND ug/L		0.080	1	06/10/13 10:04	06/18/13 07:55	7440-43-9	
Calcium	<b>15900</b> ug/L		20.0	1	06/10/13 10:04	06/18/13 07:55	7440-70-2	
Chromium	<b>0.91</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-47-3	
Cobalt	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-48-4	
Copper	<b>2.0</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-50-8	
Iron	<b>419</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 07:55	7439-89-6	
Lead	<b>0.56</b> ug/L		0.10	1	06/10/13 10:04	06/18/13 07:55	7439-92-1	
Magnesium	<b>2710</b> ug/L		5.0	1	06/10/13 10:04	06/18/13 07:55	7439-95-4	
Manganese	<b>20.7</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7439-96-5	
Molybdenum	<b>0.51</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7439-98-7	
Nickel	<b>0.83</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-02-0	
Potassium	<b>535</b> ug/L		20.0	1	06/10/13 10:04	06/18/13 07:55	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7782-49-2	
Silica	<b>5680</b> ug/L		268	5	06/10/13 10:04	06/18/13 08:16	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 07:55	7440-22-4	
Sodium	<b>1020</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 07:55	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:04	06/18/13 07:55	7440-28-0	
Total Hardness by 2340B	<b>50800</b> ug/L		71.0	1	06/10/13 10:04	06/18/13 07:55		
Vanadium	<b>0.95</b> ug/L		0.10	1	06/10/13 10:04	06/18/13 07:55	7440-62-2	
Zinc	<b>5.4</b> ug/L		5.0	1	06/10/13 10:04	06/18/13 07:55	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>42.7</b> ug/L		4.0	1	06/10/13 10:03	06/14/13 17:08	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-38-2	
Barium, Dissolved	<b>33.7</b> ug/L		0.30	1	06/10/13 10:03	06/14/13 17:08	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:03	06/14/13 17:08	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.080	1	06/10/13 10:03	06/14/13 17:08	7440-43-9	
Calcium, Dissolved	<b>17700</b> ug/L		20.0	1	06/10/13 10:03	06/14/13 17:08	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-47-3	
Cobalt, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-48-4	
Copper, Dissolved	<b>2.1</b> ug/L		0.50	1	06/10/13 10:03	06/17/13 11:44	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:03	06/14/13 17:08	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 17:08	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-11\_20130523      Lab ID: 60145450022      Collected: 05/23/13 10:14      Received: 05/24/13 10:15      Matrix: Water**

Comments:

- BP Anderson Tech Specs Apply
- All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>2580</b> ug/L		5.0	1	06/10/13 10:03	06/14/13 17:08	7439-95-4	
Manganese, Dissolved	<b>10.4</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7439-96-5	
Molybdenum, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7439-98-7	
Nickel, Dissolved	<b>3.4</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-02-0	
Potassium, Dissolved	<b>452</b> ug/L		20.0	1	06/10/13 10:03	06/14/13 17:08	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:08	7440-22-4	
Sodium, Dissolved	<b>1110</b> ug/L		50.0	1	06/10/13 10:03	06/14/13 17:08	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 17:08	7440-28-0	
Vanadium, Dissolved	<b>0.16</b> ug/L		0.10	1	06/10/13 10:03	06/14/13 17:08	7440-62-2	
Zinc, Dissolved	<b>6.7</b> ug/L		5.0	1	06/10/13 10:03	06/14/13 17:08	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>119</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 17:57	7429-90-5	
Antimony, Dissolved	<b>0.048J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-36-0	
Arsenic, Dissolved	<b>0.30J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-38-2	
Barium, Dissolved	<b>35.0</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 17:57	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:12	7440-41-7	
Cadmium, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:12	7440-43-9	
Chromium, Dissolved	<b>1.3</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:14	7440-47-3	B
Cobalt, Dissolved	<b>0.13J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-48-4	
Copper, Dissolved	<b>1.6</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:14	7440-50-8	B
Iron, Dissolved	<b>186</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:12	7439-89-6	
Lead, Dissolved	<b>0.42J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7439-92-1	B
Manganese, Dissolved	<b>17.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7439-96-5	
Molybdenum, Dissolved	<b>0.38J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7439-98-7	
Nickel, Dissolved	<b>0.57J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:12	7440-22-4	
Thallium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-28-0	
Vanadium, Dissolved	<b>0.32J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:12	7440-62-2	
Zinc, Dissolved	<b>5.8J</b> ug/L		10.0	1	06/06/13 14:00	06/07/13 17:14	7440-66-6	B
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:53	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:42	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 12:59	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>117</b> umhos/cm		10.0	1			05/31/13 10:30	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-11\_20130523      Lab ID: 60145450022      Collected: 05/23/13 10:14      Received: 05/24/13 10:15      Matrix: Water**

Comments: • BP Anderson Tech Specs Apply  
• All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>74.6</b> mg/L		6.4	1		05/31/13 11:45		
Salinity (as seawater)	<b>0.059</b> PSU		0.014	1		05/31/13 11:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	<b>39.1</b> mg/L		20.0	1		06/06/13 17:53		
Alkalinity, Carbonate (CaCO3)	ND mg/L		20.0	1		06/06/13 17:53		
Alkalinity, Total as CaCO3	<b>39.1</b> mg/L		20.0	1		06/06/13 17:53		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>78.0</b> mg/L		5.0	1		05/29/13 15:35		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>18.0</b> mg/L		5.0	1		05/28/13 18:24		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:12	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 21:51	16887-00-6	
Sulfate	<b>14.3</b> mg/L		1.0	1		06/07/13 21:51	14808-79-8	
<b>353.2 Nitrogen, NO2/NO3 pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO2 plus NO3	<b>0.53</b> mg/L		0.10	1		05/29/13 11:27		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:37	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	<b>6.0</b> mg/L		1.0	1		06/11/13 12:12	7440-44-0	

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-12\_20130523      Lab ID: 60145450023      Collected: 05/23/13 10:36      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Potentially Diss. Metals</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Calcium, Dissolved	<b>249000</b> ug/L		100	1	06/04/13 13:30	06/10/13 13:40	7440-70-2	
Magnesium, Dissolved	<b>19600</b> ug/L		50.0	1	06/04/13 13:30	06/10/13 13:40	7439-95-4	
Potassium, Dissolved	<b>4580</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:40	7440-09-7	
Sodium, Dissolved	<b>12600</b> ug/L		500	1	06/04/13 13:30	06/10/13 13:40	7440-23-5	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum	<b>214</b> ug/L		4.0	1	06/10/13 10:04	06/18/13 08:44	7429-90-5	
Antimony	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-36-0	
Arsenic	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-38-2	
Barium	<b>20.2</b> ug/L		0.30	1	06/10/13 10:04	06/18/13 08:44	7440-39-3	
Beryllium	<b>0.26</b> ug/L		0.20	1	06/10/13 10:04	06/18/13 08:44	7440-41-7	
Cadmium	<b>11.4</b> ug/L		0.080	1	06/10/13 10:04	06/18/13 08:44	7440-43-9	
Calcium	<b>232000</b> ug/L		400	20	06/10/13 10:04	06/18/13 08:49	7440-70-2	
Chromium	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-47-3	
Cobalt	<b>2.3</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-48-4	
Copper	<b>35.8</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-50-8	
Iron	<b>2580</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 08:44	7439-89-6	
Lead	<b>4.7</b> ug/L		0.10	1	06/10/13 10:04	06/18/13 08:44	7439-92-1	
Magnesium	<b>19900</b> ug/L		5.0	1	06/10/13 10:04	06/18/13 08:44	7439-95-4	
Manganese	<b>1530</b> ug/L		10.0	20	06/10/13 10:04	06/18/13 08:49	7439-96-5	
Molybdenum	<b>15.8</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7439-98-7	
Nickel	<b>3.7</b> ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-02-0	
Potassium	<b>4500</b> ug/L		20.0	1	06/10/13 10:04	06/18/13 08:44	7440-09-7	
Selenium	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7782-49-2	
Silica	<b>15800</b> ug/L		1070	20	06/10/13 10:04	06/18/13 08:49	7631-86-9	
Silver	ND ug/L		0.50	1	06/10/13 10:04	06/18/13 08:44	7440-22-4	
Sodium	<b>12500</b> ug/L		50.0	1	06/10/13 10:04	06/18/13 08:44	7440-23-5	
Thallium	ND ug/L		0.10	1	06/10/13 10:04	06/18/13 08:44	7440-28-0	
Total Hardness by 2340B	<b>662000</b> ug/L		1420	20	06/10/13 10:04	06/18/13 08:49		
Vanadium	ND ug/L		0.10	1	06/10/13 10:04	06/18/13 08:44	7440-62-2	
Zinc	<b>2090</b> ug/L		100	20	06/10/13 10:04	06/18/13 08:49	7440-66-6	
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>12.7</b> ug/L		4.0	1	06/10/13 10:03	06/14/13 17:23	7429-90-5	
Antimony, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-36-0	
Arsenic, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-38-2	
Barium, Dissolved	<b>19.5</b> ug/L		0.30	1	06/10/13 10:03	06/14/13 17:23	7440-39-3	
Beryllium, Dissolved	ND ug/L		0.20	1	06/10/13 10:03	06/14/13 17:23	7440-41-7	
Cadmium, Dissolved	<b>9.4</b> ug/L		0.080	1	06/10/13 10:03	06/14/13 17:23	7440-43-9	
Calcium, Dissolved	<b>264000</b> ug/L		400	20	06/10/13 10:03	06/14/13 17:28	7440-70-2	
Chromium, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-47-3	
Cobalt, Dissolved	<b>2.5</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-48-4	
Copper, Dissolved	<b>2.1</b> ug/L		0.50	1	06/10/13 10:03	06/17/13 11:49	7440-50-8	
Iron, Dissolved	ND ug/L		50.0	1	06/10/13 10:03	06/14/13 17:23	7439-89-6	
Lead, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 17:23	7439-92-1	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-12\_20130523      Lab ID: 60145450023      Collected: 05/23/13 10:36      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.8 MET ICPMS, Dissolved</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Magnesium, Dissolved	<b>19200</b> ug/L		5.0	1	06/10/13 10:03	06/14/13 17:23	7439-95-4	
Manganese, Dissolved	<b>1560</b> ug/L		10.0	20	06/10/13 10:03	06/14/13 17:28	7439-96-5	
Molybdenum, Dissolved	<b>15.3</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7439-98-7	
Nickel, Dissolved	<b>5.5</b> ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-02-0	
Potassium, Dissolved	<b>4440</b> ug/L		20.0	1	06/10/13 10:03	06/14/13 17:23	7440-09-7	
Selenium, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/10/13 10:03	06/14/13 17:23	7440-22-4	
Sodium, Dissolved	<b>11500</b> ug/L		50.0	1	06/10/13 10:03	06/14/13 17:23	7440-23-5	
Thallium, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 17:23	7440-28-0	
Vanadium, Dissolved	ND ug/L		0.10	1	06/10/13 10:03	06/14/13 17:23	7440-62-2	
Zinc, Dissolved	<b>1720</b> ug/L		100	20	06/10/13 10:03	06/14/13 17:28	7440-66-6	
<b>200.8 Potentially Diss. Metals</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Aluminum, Dissolved	<b>210</b> ug/L		50.0	1	06/04/13 13:30	06/06/13 18:00	7429-90-5	
Antimony, Dissolved	<b>0.20J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-36-0	
Arsenic, Dissolved	<b>0.39J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-38-2	
Barium, Dissolved	<b>19.2</b> ug/L		1.0	1	06/04/13 13:30	06/06/13 18:00	7440-39-3	
Beryllium, Dissolved	<b>0.25J</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 14:16	7440-41-7	
Cadmium, Dissolved	<b>11.7</b> ug/L		0.50	1	06/04/13 13:30	06/05/13 14:16	7440-43-9	
Chromium, Dissolved	<b>0.86J</b> ug/L		1.0	1	06/06/13 14:00	06/07/13 17:17	7440-47-3	B
Cobalt, Dissolved	<b>2.2</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-48-4	
Copper, Dissolved	<b>36.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-50-8	
Iron, Dissolved	<b>2530</b> ug/L		50.0	1	06/04/13 13:30	06/05/13 14:16	7439-89-6	
Lead, Dissolved	<b>5.0</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7439-92-1	
Manganese, Dissolved	<b>1530</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7439-96-5	
Molybdenum, Dissolved	<b>16.3</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7439-98-7	
Nickel, Dissolved	<b>3.6</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-02-0	
Selenium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7782-49-2	
Silver, Dissolved	ND ug/L		0.50	1	06/04/13 13:30	06/05/13 14:16	7440-22-4	
Thallium, Dissolved	<b>0.062J</b> ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-28-0	
Vanadium, Dissolved	ND ug/L		1.0	1	06/04/13 13:30	06/05/13 14:16	7440-62-2	
Zinc, Dissolved	<b>1980</b> ug/L		10.0	1	06/04/13 13:30	06/05/13 14:16	7440-66-6	
<b>245.1 Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND ug/L		0.20	1	06/04/13 15:50	06/05/13 16:56	7439-97-6	
<b>245.1 Mercury, Dissolved</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/04/13 12:53	06/05/13 17:45	7439-97-6	
<b>245.1 Potentially Diss Mercury</b>	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury, Dissolved	ND ug/L		0.20	1	06/06/13 09:45	06/06/13 13:02	7439-97-6	
<b>2510B Specific Conductance</b>	Analytical Method: SM 2510B							
Specific Conductance	<b>1340</b> umhos/cm		10.0	1			05/31/13 10:32	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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**Sample: DR-12\_20130523      Lab ID: 60145450023      Collected: 05/23/13 10:36      Received: 05/24/13 10:15      Matrix: Water**

Comments: • All reported results confirmed for total vs. dissolved metals

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>Salinity</b>	Analytical Method: Calculated							
Salinity (as dissolved solids)	<b>861</b> mg/L		6.4	1		05/31/13 11:45		
Salinity (as seawater)	<b>0.67</b> PSU		0.014	1		05/31/13 11:45		
<b>2320B Alkalinity</b>	Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	<b>97.8</b> mg/L		20.0	1		06/06/13 17:57		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	ND mg/L		20.0	1		06/06/13 17:57		
Alkalinity, Total as CaCO <sub>3</sub>	<b>97.8</b> mg/L		20.0	1		06/06/13 17:57		
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C							
Total Dissolved Solids	<b>892</b> mg/L		5.0	1		05/29/13 15:36		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	<b>5.0</b> mg/L		5.0	1		05/28/13 18:25		
<b>4500S2D Sulfide, Total</b>	Analytical Method: SM 4500-S-2 D							
Sulfide, Total	ND mg/L		0.050	1		05/30/13 14:12	18496-25-8	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0							
Chloride	ND mg/L		1.0	1		06/07/13 22:07	16887-00-6	
Sulfate	<b>635</b> mg/L		100	100		06/09/13 01:51	14808-79-8	
<b>353.2 Nitrogen, NO<sub>2</sub>/NO<sub>3</sub> pres.</b>	Analytical Method: EPA 353.2							
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	ND mg/L		0.10	1		05/29/13 11:28		
<b>4500CNE Cyanide, Total</b>	Analytical Method: SM 4500-CN-E							
Cyanide	ND mg/L		0.0050	1		05/29/13 14:40	57-12-5	
<b>5310C TOC</b>	Analytical Method: SM 5310C							
Total Organic Carbon	ND mg/L		1.0	1		06/11/13 12:21	7440-44-0	

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**Appendix D**  
**Laboratory QC Results**

## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MERP/8505	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1439150 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury	ug/L	ND	0.20	05/31/13 12:23	

LABORATORY CONTROL SAMPLE: 1439151

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	5	4.8	95	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1439152 1439153

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike										
Mercury	ug/L	ND	5	5	4.5	4.7	90	93	85-115	4	30		

MATRIX SPIKE SAMPLE: 1439154

Parameter	Units	60144985014	Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits		
Mercury	ug/L	ND	5	5.0	99	85-115		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MERP/8499	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1439117 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	05/30/13 13:30	

LABORATORY CONTROL SAMPLE: 1439118

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.1	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1439119 1439120

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	4.6	4.7	93	94	85-115	1	20

MATRIX SPIKE SAMPLE: 1439121

Parameter	Units	60144985014 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	ND	5	4.8	95	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MERP/7375	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury, Potentially Dissolved
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1193542 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	05/28/13 11:56	

LABORATORY CONTROL SAMPLE: 1193543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	5.0	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1193544 1193545

Parameter	Units	60144985003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	4.5	4.5	91	90	70-130	1	20	

MATRIX SPIKE SAMPLE: 1193546

Parameter	Units	60144985013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	ND	5	4.7	94	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MPRP/22809	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 Potentially Dissolved Metals
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1195024 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Calcium, Dissolved	ug/L	14.4J	100	06/03/13 12:38	
Magnesium, Dissolved	ug/L	18.0J	50.0	06/03/13 12:38	
Potassium, Dissolved	ug/L	ND	500	06/03/13 12:38	
Sodium, Dissolved	ug/L	ND	500	06/03/13 12:38	

LABORATORY CONTROL SAMPLE: 1195025

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Calcium, Dissolved	ug/L	10000	10000	100	85-115	
Magnesium, Dissolved	ug/L	10000	10100	101	85-115	
Potassium, Dissolved	ug/L	10000	9610	96	85-115	
Sodium, Dissolved	ug/L	10000	9470	95	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1195026 1195027

Parameter	Units	MS		MSD		MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		60144985004	Result	Spike	Conc.	MS	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Calcium, Dissolved	ug/L	273000	10000	10000	286000	271000	123	-25	70-130	5	20	M1	
Magnesium, Dissolved	ug/L	31300	10000	10000	40900	39500	96	82	70-130	3	20		
Potassium, Dissolved	ug/L	4780	10000	10000	15100	14900	103	101	70-130	1	20		
Sodium, Dissolved	ug/L	10500	10000	10000	20900	20500	104	100	70-130	2	20		

MATRIX SPIKE SAMPLE: 1195028

Parameter	Units	60144985010		Spike	MS	MS		% Rec	Limits	Qualifiers
		Result	Conc.	Result	% Rec	MS		Limits		
Calcium, Dissolved	ug/L	271000	10000	281000	100	100	70-130			
Magnesium, Dissolved	ug/L	35000	10000	44600	96	96	70-130			
Potassium, Dissolved	ug/L	3200	10000	13400	102	102	70-130			
Sodium, Dissolved	ug/L	8010	10000	18200	102	102	70-130			

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MPRP/39491	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1442082 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Aluminum	ug/L	ND	4.0	06/06/13 16:33	
Antimony	ug/L	ND	0.50	06/06/13 16:33	
Arsenic	ug/L	ND	0.50	06/06/13 16:33	
Barium	ug/L	ND	0.30	06/06/13 16:33	
Beryllium	ug/L	ND	0.20	06/06/13 16:33	
Cadmium	ug/L	ND	0.080	06/06/13 16:33	
Calcium	ug/L	ND	20.0	06/06/13 16:33	
Chromium	ug/L	ND	0.50	06/06/13 16:33	
Cobalt	ug/L	ND	0.50	06/06/13 16:33	
Copper	ug/L	ND	0.50	06/06/13 16:33	
Iron	ug/L	ND	50.0	06/06/13 16:33	
Lead	ug/L	ND	0.10	06/06/13 16:33	
Magnesium	ug/L	ND	5.0	06/06/13 16:33	
Manganese	ug/L	ND	0.50	06/06/13 16:33	
Molybdenum	ug/L	ND	0.50	06/06/13 16:33	
Nickel	ug/L	ND	0.50	06/06/13 16:33	
Potassium	ug/L	ND	20.0	06/06/13 16:33	
Selenium	ug/L	ND	0.50	06/06/13 16:33	
Silver	ug/L	ND	0.50	06/06/13 16:33	
Sodium	ug/L	ND	50.0	06/06/13 16:33	
Thallium	ug/L	ND	0.10	06/06/13 16:33	
Vanadium	ug/L	ND	0.10	06/06/13 16:33	
Zinc	ug/L	ND	5.0	06/06/13 16:33	

LABORATORY CONTROL SAMPLE: 1442083

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Aluminum	ug/L	80	78.8	99	85-115	
Antimony	ug/L	80	79.7	100	85-115	
Arsenic	ug/L	80	75.6	95	85-115	
Barium	ug/L	80	79.9	100	85-115	
Beryllium	ug/L	80	76.8	96	85-115	
Cadmium	ug/L	80	83.1	104	85-115	
Calcium	ug/L	1000	983	98	85-115	
Chromium	ug/L	80	79.0	99	85-115	
Cobalt	ug/L	80	79.3	99	85-115	
Copper	ug/L	80	80.1	100	85-115	
Iron	ug/L	1000	1000	100	85-115	
Lead	ug/L	80	86.9	109	85-115	
Magnesium	ug/L	1000	1010	101	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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LABORATORY CONTROL SAMPLE: 1442083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese	ug/L	80	79.3	99	85-115	
Molybdenum	ug/L	80	77.8	97	85-115	
Nickel	ug/L	80	78.4	98	85-115	
Potassium	ug/L	1000	984	98	85-115	
Selenium	ug/L	80	78.4	98	85-115	
Silver	ug/L	80	89.4	112	85-115	
Sodium	ug/L	1000	1060	106	85-115	
Thallium	ug/L	80	85.7	107	85-115	
Vanadium	ug/L	80	77.1	96	85-115	
Zinc	ug/L	80	80.9	101	85-115	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1442084      1442085

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		60144985001	Spike Conc.	Spike Conc.	MS Result				RPD	RPD	Qual
Aluminum	ug/L	5050	80	80	7360	7070	2880	2530	70-130	4	20 M1
Antimony	ug/L	ND	80	80	74.9	75.8	93	95	70-130	1	20
Arsenic	ug/L	3.4	80	80	78.8	79.0	94	95	70-130	.3	20
Barium	ug/L	103	80	80	189	188	108	106	70-130	.7	20
Beryllium	ug/L	0.53	80	80	82.8	76.4	103	95	70-130	8	20
Cadmium	ug/L	1.5	80	80	82.2	83.4	101	102	70-130	1	20
Calcium	ug/L	218000	1000	1000	260000	227000	4210	890	70-130	14	20 E,M1
Chromium	ug/L	5.5	80	80	83.1	83.8	97	98	70-130	.8	20
Cobalt	ug/L	1.9	80	80	80.4	80.3	98	98	70-130	.2	20
Copper	ug/L	24.2	80	80	100	100	95	95	70-130	.2	20
Iron	ug/L	5700	1000	1000	7010	6940	132	125	70-130	1	20 M1
Lead	ug/L	31.6	80	80	114	114	103	103	70-130	.1	20
Magnesium	ug/L	26400	1000	1000	27600	27700	128	138	70-130	.4	20 M1
Manganese	ug/L	113	80	80	191	192	97	98	70-130	.5	20
Molybdenum	ug/L	1.9	80	80	79.0	79.2	96	97	70-130	.3	20
Nickel	ug/L	4.0	80	80	80.6	80.7	96	96	70-130	.1	20
Potassium	ug/L	4140	1000	1000	5600	5430	146	130	70-130	3	20 M1
Selenium	ug/L	31.7	80	80	107	107	94	94	70-130	.2	20
Silver	ug/L	ND	80	80	85.4	85.8	106	107	70-130	.5	20
Sodium	ug/L	7080	1000	1000	8150	8200	107	112	70-130	.6	20
Thallium	ug/L	0.14	80	80	83.4	83.2	104	104	70-130	.2	20
Vanadium	ug/L	6.3	80	80	84.3	84.5	97	98	70-130	.2	20
Zinc	ug/L	231	80	80	315	313	105	103	70-130	.6	20

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MATRIX SPIKE SAMPLE: 1442086

Parameter	Units	60144985011		Spike Conc.	MS		MS % Rec	% Rec Limits	Qualifiers	
		Result	Conc.		Result	% Rec			RPD	RPD
Aluminum	ug/L	3710	80	80	4960	1570	70-130	M1		
Antimony	ug/L	ND	80	80	77.2	96	70-130			
Arsenic	ug/L	40.2	80	80	118	97	70-130			

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

MATRIX SPIKE SAMPLE: 1442086

Parameter	Units	60144985011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	51.7	80	137	106	70-130	
Beryllium	ug/L	ND	80	77.6	96	70-130	
Cadmium	ug/L	2.0	80	84.6	103	70-130	
Calcium	ug/L	279000	1000	292000	1280	70-130	E,M1
Chromium	ug/L	3.7	80	83.1	99	70-130	
Cobalt	ug/L	4.4	80	86.2	102	70-130	
Copper	ug/L	23.6	80	104	100	70-130	
Iron	ug/L	28200	1000	29700	144	70-130	M1
Lead	ug/L	41.2	80	124	104	70-130	
Magnesium	ug/L	43900	1000	45000	111	70-130	
Manganese	ug/L	6850	80	7220	471	70-130	E,M1
Molybdenum	ug/L	7.5	80	89.5	102	70-130	
Nickel	ug/L	5.6	80	85.7	100	70-130	
Potassium	ug/L	7180	1000	8630	146	70-130	M1
Selenium	ug/L	1.4	80	77.0	94	70-130	
Silver	ug/L	ND	80	88.4	110	70-130	
Sodium	ug/L	5020	1000	6280	126	70-130	
Thallium	ug/L	ND	80	82.8	103	70-130	
Vanadium	ug/L	6.7	80	86.4	100	70-130	
Zinc	ug/L	814	80	890	96	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MPRP/39499	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1442123      Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Aluminum, Dissolved	ug/L	ND	4.0	06/05/13 10:12	
Antimony, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Arsenic, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Barium, Dissolved	ug/L	ND	0.30	06/05/13 10:12	
Beryllium, Dissolved	ug/L	ND	0.20	06/05/13 10:12	
Cadmium, Dissolved	ug/L	ND	0.080	06/05/13 10:12	
Calcium, Dissolved	ug/L	ND	20.0	06/05/13 10:12	
Chromium, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Cobalt, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Copper, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Iron, Dissolved	ug/L	ND	50.0	06/05/13 10:12	
Lead, Dissolved	ug/L	ND	0.10	06/05/13 10:12	
Magnesium, Dissolved	ug/L	ND	5.0	06/05/13 10:12	
Manganese, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Molybdenum, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Nickel, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Potassium, Dissolved	ug/L	ND	20.0	06/05/13 10:12	
Selenium, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Silver, Dissolved	ug/L	ND	0.50	06/05/13 10:12	
Sodium, Dissolved	ug/L	ND	50.0	06/05/13 10:12	
Thallium, Dissolved	ug/L	ND	0.10	06/05/13 10:12	
Vanadium, Dissolved	ug/L	ND	0.10	06/05/13 10:12	
Zinc, Dissolved	ug/L	ND	5.0	06/05/13 10:12	

LABORATORY CONTROL SAMPLE: 1442124

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	80	78.7	98	85-115	
Antimony, Dissolved	ug/L	80	78.8	99	85-115	
Arsenic, Dissolved	ug/L	80	75.7	95	85-115	
Barium, Dissolved	ug/L	80	78.9	99	85-115	
Beryllium, Dissolved	ug/L	80	88.5	111	85-115	
Cadmium, Dissolved	ug/L	80	82.4	103	85-115	
Calcium, Dissolved	ug/L	1000	973	97	85-115	
Chromium, Dissolved	ug/L	80	78.7	98	85-115	
Cobalt, Dissolved	ug/L	80	78.6	98	85-115	
Copper, Dissolved	ug/L	80	80.2	100	85-115	
Iron, Dissolved	ug/L	1000	996	100	85-115	
Lead, Dissolved	ug/L	80	84.2	105	85-115	
Magnesium, Dissolved	ug/L	1000	1010	101	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

**LABORATORY CONTROL SAMPLE:** 1442124

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Manganese, Dissolved	ug/L	80	78.4	98	85-115	
Molybdenum, Dissolved	ug/L	80	77.4	97	85-115	
Nickel, Dissolved	ug/L	80	79.9	100	85-115	
Potassium, Dissolved	ug/L	1000	958	96	85-115	
Selenium, Dissolved	ug/L	80	77.2	97	85-115	
Silver, Dissolved	ug/L	80	88.6	111	85-115	
Sodium, Dissolved	ug/L	1000	1020	102	85-115	
Thallium, Dissolved	ug/L	80	84.8	106	85-115	
Vanadium, Dissolved	ug/L	80	76.8	96	85-115	
Zinc, Dissolved	ug/L	80	81.9	102	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1442125      1442126

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		60144985001	Spk Conc.	Spk Conc.	MS Result						
Aluminum, Dissolved	ug/L	26.0	80	80	103	104	96	97	70-130	.6	20
Antimony, Dissolved	ug/L	ND	80	80	79.0	78.8	99	98	70-130	.3	20
Arsenic, Dissolved	ug/L	ND	80	80	77.7	77.6	97	97	70-130	.2	20
Barium, Dissolved	ug/L	61.6	80	80	144	144	103	103	70-130	.1	20
Beryllium, Dissolved	ug/L	ND	80	80	85.1	86.0	106	107	70-130	1	20
Cadmium, Dissolved	ug/L	1.3	80	80	82.3	82.0	101	101	70-130	.3	20
Calcium, Dissolved	ug/L	222000	1000	1000	230000	226000	785	445	70-130	1	20 E,M1
Chromium, Dissolved	ug/L	ND	80	80	78.7	78.5	98	98	70-130	.4	20
Cobalt, Dissolved	ug/L	ND	80	80	79.9	79.3	100	99	70-130	.7	20
Copper, Dissolved	ug/L	2.6	80	80	80.7	80.5	98	97	70-130	.2	20
Iron, Dissolved	ug/L	ND	1000	1000	996	985	99	98	70-130	1	20
Lead, Dissolved	ug/L	0.36	80	80	81.9	81.1	102	101	70-130	1	20
Magnesium, Dissolved	ug/L	25000	1000	1000	26300	26100	128	108	70-130	.8	20
Manganese, Dissolved	ug/L	7.0	80	80	85.6	84.9	98	97	70-130	.7	20
Molybdenum, Dissolved	ug/L	1.3	80	80	81.2	81.6	100	100	70-130	.4	20
Nickel, Dissolved	ug/L	4.1	80	80	83.0	82.8	99	98	70-130	.2	20
Potassium, Dissolved	ug/L	3040	1000	1000	4110	4080	106	104	70-130	.7	20
Selenium, Dissolved	ug/L	30.8	80	80	111	111	100	100	70-130	.04	20
Silver, Dissolved	ug/L	ND	80	80	86.3	86.1	108	108	70-130	.3	20
Sodium, Dissolved	ug/L	6680	1000	1000	7990	7950	131	127	70-130	.4	20 M1
Thallium, Dissolved	ug/L	ND	80	80	84.4	83.3	105	104	70-130	1	20
Vanadium, Dissolved	ug/L	ND	80	80	77.7	77.4	97	97	70-130	.3	20
Zinc, Dissolved	ug/L	155	80	80	243	241	110	108	70-130	.7	20

**MATRIX SPIKE SAMPLE:** 1442127

Parameter	Units	60144985011	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	385	80	487	127	70-130	
Antimony, Dissolved	ug/L	ND	80	80.6	101	70-130	
Arsenic, Dissolved	ug/L	19.6	80	99.1	99	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

MATRIX SPIKE SAMPLE: 1442127

Parameter	Units	60144985011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium, Dissolved	ug/L	17.9	80	101	104	70-130	
Beryllium, Dissolved	ug/L	0.64	80	83.1	103	70-130	
Cadmium, Dissolved	ug/L	0.11	80	83.6	104	70-130	
Calcium, Dissolved	ug/L	276000	1000	335000	5860	70-130	E,M1
Chromium, Dissolved	ug/L	0.50	80	80.4	100	70-130	
Cobalt, Dissolved	ug/L	2.9	80	84.7	102	70-130	
Copper, Dissolved	ug/L	0.73	80	80.6	100	70-130	
Iron, Dissolved	ug/L	22800	1000	24600	180	70-130	M1
Lead, Dissolved	ug/L	0.60	80	83.9	104	70-130	
Magnesium, Dissolved	ug/L	41900	1000	44100	214	70-130	M1
Manganese, Dissolved	ug/L	7120	80	8210	1360	70-130	E,M1
Molybdenum, Dissolved	ug/L	5.9	80	88.3	103	70-130	
Nickel, Dissolved	ug/L	2.5	80	83.1	101	70-130	
Potassium, Dissolved	ug/L	6510	1000	7590	108	70-130	
Selenium, Dissolved	ug/L	0.81	80	78.5	97	70-130	
Silver, Dissolved	ug/L	ND	80	87.7	110	70-130	
Sodium, Dissolved	ug/L	4970	1000	6160	119	70-130	
Thallium, Dissolved	ug/L	ND	80	85.9	107	70-130	
Vanadium, Dissolved	ug/L	0.13	80	79.2	99	70-130	
Zinc, Dissolved	ug/L	328	80	424	120	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MPRP/22808	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1195012 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Aluminum, Dissolved	ug/L	ND	50.0	05/30/13 12:33	
Antimony, Dissolved	ug/L	0.053J	1.0	05/30/13 12:33	
Arsenic, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Barium, Dissolved	ug/L	0.15J	1.0	05/30/13 12:33	
Beryllium, Dissolved	ug/L	ND	0.50	05/30/13 12:33	
Cadmium, Dissolved	ug/L	ND	0.50	05/30/13 12:33	
Chromium, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Cobalt, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Copper, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Iron, Dissolved	ug/L	ND	50.0	05/30/13 12:33	
Lead, Dissolved	ug/L	0.11J	1.0	05/30/13 12:33	
Manganese, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Molybdenum, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Nickel, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Selenium, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Silver, Dissolved	ug/L	ND	0.50	05/30/13 12:33	
Thallium, Dissolved	ug/L	0.26J	1.0	05/30/13 12:33	
Vanadium, Dissolved	ug/L	ND	1.0	05/30/13 12:33	
Zinc, Dissolved	ug/L	ND	10.0	05/30/13 12:33	

LABORATORY CONTROL SAMPLE: 1195013

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	1000	983	98	85-115	
Antimony, Dissolved	ug/L	40	40.3	101	85-115	
Arsenic, Dissolved	ug/L	40	40.8	102	85-115	
Barium, Dissolved	ug/L	40	39.6	99	85-115	
Beryllium, Dissolved	ug/L	40	41.3	103	85-115	
Cadmium, Dissolved	ug/L	40	39.8	100	85-115	
Chromium, Dissolved	ug/L	40	41.4	103	85-115	
Cobalt, Dissolved	ug/L	40	40.6	102	85-115	
Copper, Dissolved	ug/L	40	40.6	102	85-115	
Iron, Dissolved	ug/L	1000	1010	101	85-115	
Lead, Dissolved	ug/L	40	40.4	101	85-115	
Manganese, Dissolved	ug/L	40	40.4	101	85-115	
Molybdenum, Dissolved	ug/L	40	40.7	102	85-115	
Nickel, Dissolved	ug/L	40	40.8	102	85-115	
Selenium, Dissolved	ug/L	40	41.0	103	85-115	
Silver, Dissolved	ug/L	20	19.8	99	85-115	
Thallium, Dissolved	ug/L	40	38.8	97	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

LABORATORY CONTROL SAMPLE: 1195013

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vanadium, Dissolved	ug/L	40	41.8	104	85-115	
Zinc, Dissolved	ug/L	100	105	105	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1195014 1195015

Parameter	Units	60144985006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
			Conc.	Conc.	Result	Result	% Rec	% Rec	RPD	RPD	RPD	Qual
Aluminum, Dissolved	ug/L	2020	1000	1000	2920	2960	89	94	70-130	2	20	
Antimony, Dissolved	ug/L	0.25J	40	40	40.2	39.8	100	99	70-130	1	20	
Arsenic, Dissolved	ug/L	2.3	40	40	43.2	43.4	102	103	70-130	0	20	
Barium, Dissolved	ug/L	40.5	40	40	80.3	79.5	100	98	70-130	1	20	
Beryllium, Dissolved	ug/L	0.29J	40	40	37.4	37.2	93	92	70-130	1	20	
Cadmium, Dissolved	ug/L	1.0	40	40	39.3	39.4	96	96	70-130	0	20	
Chromium, Dissolved	ug/L	6.3	40	40	46.5	49.8	101	109	70-130	7	20	
Cobalt, Dissolved	ug/L	2.6	40	40	42.1	42.0	99	98	70-130	0	20	
Copper, Dissolved	ug/L	20.6	40	40	58.0	60.5	94	100	70-130	4	20	
Iron, Dissolved	ug/L	3290	1000	1000	4250	4300	96	102	70-130	1	20	
Lead, Dissolved	ug/L	66.2	40	40	108	109	105	106	70-130	0	20	
Manganese, Dissolved	ug/L	438	40	40	479	478	102	100	70-130	0	20	
Molybdenum, Dissolved	ug/L	2.9	40	40	46.0	46.9	108	110	70-130	2	20	
Nickel, Dissolved	ug/L	4.6	40	40	43.5	44.6	97	100	70-130	2	20	
Selenium, Dissolved	ug/L	9.7	40	40	48.4	50.2	97	101	70-130	3	20	
Silver, Dissolved	ug/L	0.58	20	20	19.5	19.5	95	95	70-130	0	20	
Thallium, Dissolved	ug/L	0.39J	40	40	39.9	39.6	99	98	70-130	1	20	
Vanadium, Dissolved	ug/L	3.7	40	40	44.8	45.1	103	104	70-130	1	20	
Zinc, Dissolved	ug/L	126	100	100	215	218	90	92	70-130	1	20	

MATRIX SPIKE SAMPLE: 1195041

Parameter	Units	60144985013 Result	Spikes Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
			Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	1210	1000	2160	95	70-130	
Antimony, Dissolved	ug/L	0.41J	40	39.7	98	70-130	
Arsenic, Dissolved	ug/L	2.0	40	42.8	102	70-130	
Barium, Dissolved	ug/L	22.0	40	61.7	99	70-130	
Beryllium, Dissolved	ug/L	1.1	40	38.6	94	70-130	
Cadmium, Dissolved	ug/L	15.8	40	53.0	93	70-130	
Chromium, Dissolved	ug/L	5.4	40	48.1	107	70-130	
Cobalt, Dissolved	ug/L	2.4	40	41.2	97	70-130	
Copper, Dissolved	ug/L	216	40	248	81	70-130	
Iron, Dissolved	ug/L	13500	1000	14200	74	70-130	
Lead, Dissolved	ug/L	26.9	40	66.7	100	70-130	
Manganese, Dissolved	ug/L	1600	40	1620	58	70-130	M1
Molybdenum, Dissolved	ug/L	17.1	40	59.9	107	70-130	
Nickel, Dissolved	ug/L	5.6	40	45.2	99	70-130	
Selenium, Dissolved	ug/L	ND	40	39.5	99	70-130	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

MATRIX SPIKE SAMPLE:		1195041						
Parameter	Units	60144985013	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
Silver, Dissolved	ug/L	ND	20	18.5	92	70-130		
Thallium, Dissolved	ug/L	0.32J	40	38.8	96	70-130		
Vanadium, Dissolved	ug/L	ND	40	41.2	103	70-130		
Zinc, Dissolved	ug/L	3130	100	3090	-48	70-130 M1		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	MT/12097	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

METHOD BLANK: 1440451 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	05/24/13 10:52	

LABORATORY CONTROL SAMPLE: 1440452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1010	101	90-110	

SAMPLE DUPLICATE: 1440453

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1500	1540	2	20	

SAMPLE DUPLICATE: 1440454

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	48.4	47.8	1	20	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch: WET/41501 Analysis Method: SM 2320B

QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity

Associated Lab Samples: 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

METHOD BLANK: 1194865 Matrix: Water

Associated Lab Samples: 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/27/13 10:26	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	05/27/13 10:26	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/27/13 10:26	

LABORATORY CONTROL SAMPLE: 1194866

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	471	94	90-110	

SAMPLE DUPLICATE: 1194869

Parameter	Units	60144745014	Dup	Max	RPD	Qualifiers
		Result	Result			
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	109	109	0	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	109	109	0	10	

SAMPLE DUPLICATE: 1194871

Parameter	Units	60144998002	Dup	Max	RPD	Qualifiers
		Result	Result			
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	509	518	2	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	509	518	2	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WET/41504	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007			

METHOD BLANK: 1194880 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/28/13 12:18	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	05/28/13 12:18	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/28/13 12:18	

LABORATORY CONTROL SAMPLE: 1194881

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	473	95	90-110	

SAMPLE DUPLICATE: 1194884

Parameter	Units	60145282004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	341	340	0	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	341	340	0	10	

SAMPLE DUPLICATE: 1194885

Parameter	Units	60144864006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	157	158	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	157	158	1	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WET/41370	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1190519 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	05/20/13 13:37	

LABORATORY CONTROL SAMPLE: 1190520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	999	100	80-120	

SAMPLE DUPLICATE: 1190521

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	495	493	0	17	

SAMPLE DUPLICATE: 1190522

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1050	1050	1	17	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WET/41380	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK:	1190791	Matrix:	Water
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Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/21/13 08:22	

SAMPLE DUPLICATE: 1190792

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	60144720001	56.0	64.0	13	25

SAMPLE DUPLICATE: 1190793

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	60144837002	26.0	27.0	4	25

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WET/41369	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
Associated Lab Samples: 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014			

METHOD BLANK: 1190516 Matrix: Water

Associated Lab Samples: 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	05/21/13 14:56	

LABORATORY CONTROL SAMPLE: 1190517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.48	96	80-120	

MATRIX SPIKE SAMPLE: 1190518

Parameter	Units	60144745010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.064	13	75-125	M1

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch: WET/41423 Analysis Method: SM 4500-S-2 D

QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006

METHOD BLANK: 1191763 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	05/22/13 13:06	

LABORATORY CONTROL SAMPLE: 1191764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.50	100	80-120	

MATRIX SPIKE SAMPLE: 1191765

Parameter	Units	60144818001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.12	24	75-125	M1

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WET/41424	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
Associated Lab Samples:	60144985007		

METHOD BLANK: 1191766	Matrix: Water
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Associated Lab Samples: 60144985007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	05/22/13 13:24	

LABORATORY CONTROL SAMPLE: 1191767

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.50	99	80-120	

MATRIX SPIKE SAMPLE: 1191768

Parameter	Units	60144985007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	ND	.5	0.26	51	75-125	M1

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WETA/24929	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1197163 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Chloride	mg/L	ND	1.0	06/02/13 10:38	
Sulfate	mg/L	ND	1.0	06/02/13 10:38	

LABORATORY CONTROL SAMPLE: 1197164

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chloride	mg/L	5	5.0	99	90-110	
Sulfate	mg/L	5	5.0	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1197165 1197166

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		60144985001	Spike										
Chloride	mg/L	1.1	5	5	5.2	5.3	82	83	64-118	1	12		
Sulfate	mg/L	416	250	250	629	621	86	82	61-119	1	10		

MATRIX SPIKE SAMPLE: 1197167

Parameter	Units	60144985009	Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Result	% Rec			
Chloride	mg/L	1.3	5	5.8	90	64-118		
Sulfate	mg/L	660	500	1090	87	61-119		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch:	WETA/24877	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014		

METHOD BLANK: 1195321 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007, 60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	0.10	05/29/13 10:23	

LABORATORY CONTROL SAMPLE: 1195322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	2	2.1	103	90-110	

MATRIX SPIKE SAMPLE: 1195323

Parameter	Units	60145571002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	2	1.7	86	90-110	M1

MATRIX SPIKE SAMPLE: 1195325

Parameter	Units	60144985001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.33	2	2.4	103	90-110	

SAMPLE DUPLICATE: 1195324

Parameter	Units	60145258001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	3.9	3.9	0	13	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch: WETA/24790 Analysis Method: SM 4500-CN-E

QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

METHOD BLANK: 1191448 Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	05/22/13 15:00	

LABORATORY CONTROL SAMPLE: 1191449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	103	69-126	

MATRIX SPIKE SAMPLE: 1191450

Parameter	Units	60144985002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.079	79	41-136	

SAMPLE DUPLICATE: 1191451

Parameter	Units	60144985004 Result	Dup Result	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND	26	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

QC Batch: WETA/24988

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

METHOD BLANK: 1199139

Matrix: Water

Associated Lab Samples: 60144985001, 60144985002, 60144985003, 60144985004, 60144985005, 60144985006, 60144985007,  
60144985008, 60144985009, 60144985010, 60144985011, 60144985012, 60144985013, 60144985014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	06/05/13 11:22	

LABORATORY CONTROL SAMPLE: 1199140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.2	104	80-120	

MATRIX SPIKE SAMPLE: 1199141

Parameter	Units	60144985001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.6	5	6.8	104	80-120	

SAMPLE DUPLICATE: 1199142

Parameter	Units	60144985002 Result	Dup Result	Max RPD	Qualifiers
Total Organic Carbon	mg/L	ND	ND	25	

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## QUALIFIERS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60144985

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985001	MW-4 SHALLOW_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985002	P13-102_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985003	MW-4 DEEP_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985004	P13-103_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985005	MW-1 DEEP_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985006	MW-1 SHALLOW_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985007	MW-204_20130516	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985008	MW-102_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985009	MW-101_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985010	GW-7_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985011	MW-6 DEEP_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985012	MW-6 SHALLOW_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985013	DR-8_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985014	DR-3_20130515	EPA 200.7	MPRP/22809	EPA 200.7	ICP/18065
60144985001	MW-4 SHALLOW_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985002	P13-102_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985003	MW-4 DEEP_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985004	P13-103_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985005	MW-1 DEEP_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985006	MW-1 SHALLOW_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985007	MW-204_20130516	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985008	MW-102_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985009	MW-101_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985010	GW-7_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985011	MW-6 DEEP_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985012	MW-6 SHALLOW_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985013	DR-8_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985014	DR-3_20130515	EPA 200.8	MPRP/39491	EPA 200.8	ICPM/16317
60144985001	MW-4 SHALLOW_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985002	P13-102_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985003	MW-4 DEEP_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985004	P13-103_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985005	MW-1 DEEP_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985006	MW-1 SHALLOW_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985007	MW-204_20130516	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985008	MW-102_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985009	MW-101_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985010	GW-7_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985011	MW-6 DEEP_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985012	MW-6 SHALLOW_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985013	DR-8_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985014	DR-3_20130515	EPA 200.8	MPRP/39499	EPA 200.8	ICPM/16316
60144985001	MW-4 SHALLOW_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985002	P13-102_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985003	MW-4 DEEP_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985004	P13-103_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985005	MW-1 DEEP_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985006	MW-1 SHALLOW_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985007	MW-204_20130516	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985008	MW-102_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985009	MW-101_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985010	GW-7_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985011	MW-6 DEEP_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985012	MW-6 SHALLOW_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985013	DR-8_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985014	DR-3_20130515	EPA 200.8	MPRP/22808	EPA 200.8	ICPM/2291
60144985001	MW-4 SHALLOW_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985002	P13-102_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985003	MW-4 DEEP_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985004	P13-103_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985005	MW-1 DEEP_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985006	MW-1 SHALLOW_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985007	MW-204_20130516	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985008	MW-102_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985009	MW-101_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985010	GW-7_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985011	MW-6 DEEP_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985012	MW-6 SHALLOW_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985013	DR-8_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985014	DR-3_20130515	EPA 245.1	MERP/8505	EPA 245.1	MERC/9687
60144985001	MW-4 SHALLOW_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985002	P13-102_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985003	MW-4 DEEP_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985004	P13-103_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985005	MW-1 DEEP_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985006	MW-1 SHALLOW_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985007	MW-204_20130516	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985008	MW-102_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985009	MW-101_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985010	GW-7_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985011	MW-6 DEEP_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985012	MW-6 SHALLOW_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985013	DR-8_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985014	DR-3_20130515	EPA 245.1	MERP/8499	EPA 245.1	MERC/9680
60144985001	MW-4 SHALLOW_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985002	P13-102_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985003	MW-4 DEEP_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985004	P13-103_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985005	MW-1 DEEP_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985006	MW-1 SHALLOW_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985007	MW-204_20130516	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985008	MW-102_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985009	MW-101_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985010	GW-7_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985011	MW-6 DEEP_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985012	MW-6 SHALLOW_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985013	DR-8_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985014	DR-3_20130515	EPA 245.1	MERP/7375	EPA 245.1	MERC/7334
60144985001	MW-4 SHALLOW_20130516	SM 2510B	MT/12097		
60144985002	P13-102_20130516	SM 2510B	MT/12097		
60144985003	MW-4 DEEP_20130516	SM 2510B	MT/12097		
60144985004	P13-103_20130516	SM 2510B	MT/12097		
60144985005	MW-1 DEEP_20130516	SM 2510B	MT/12097		
60144985006	MW-1 SHALLOW_20130516	SM 2510B	MT/12097		
60144985007	MW-204_20130516	SM 2510B	MT/12097		
60144985008	MW-102_20130515	SM 2510B	MT/12097		
60144985009	MW-101_20130515	SM 2510B	MT/12097		
60144985010	GW-7_20130515	SM 2510B	MT/12097		
60144985011	MW-6 DEEP_20130515	SM 2510B	MT/12097		
60144985012	MW-6 SHALLOW_20130515	SM 2510B	MT/12097		
60144985013	DR-8_20130515	SM 2510B	MT/12097		
60144985014	DR-3_20130515	SM 2510B	MT/12097		
60144985001	MW-4 SHALLOW_20130516	Calculated	MT/12104		
60144985002	P13-102_20130516	Calculated	MT/12104		
60144985003	MW-4 DEEP_20130516	Calculated	MT/12104		
60144985004	P13-103_20130516	Calculated	MT/12104		
60144985005	MW-1 DEEP_20130516	Calculated	MT/12104		
60144985006	MW-1 SHALLOW_20130516	Calculated	MT/12104		
60144985007	MW-204_20130516	Calculated	MT/12104		
60144985008	MW-102_20130515	Calculated	MT/12104		
60144985009	MW-101_20130515	Calculated	MT/12104		
60144985010	GW-7_20130515	Calculated	MT/12104		
60144985011	MW-6 DEEP_20130515	Calculated	MT/12104		
60144985012	MW-6 SHALLOW_20130515	Calculated	MT/12104		
60144985013	DR-8_20130515	Calculated	MT/12104		
60144985014	DR-3_20130515	Calculated	MT/12104		
60144985001	MW-4 SHALLOW_20130516	SM 2320B	WET/41504		
60144985002	P13-102_20130516	SM 2320B	WET/41504		
60144985003	MW-4 DEEP_20130516	SM 2320B	WET/41504		
60144985004	P13-103_20130516	SM 2320B	WET/41504		
60144985005	MW-1 DEEP_20130516	SM 2320B	WET/41504		
60144985006	MW-1 SHALLOW_20130516	SM 2320B	WET/41504		
60144985007	MW-204_20130516	SM 2320B	WET/41504		
60144985008	MW-102_20130515	SM 2320B	WET/41501		
60144985009	MW-101_20130515	SM 2320B	WET/41501		
60144985010	GW-7_20130515	SM 2320B	WET/41501		
60144985011	MW-6 DEEP_20130515	SM 2320B	WET/41501		
60144985012	MW-6 SHALLOW_20130515	SM 2320B	WET/41501		
60144985013	DR-8_20130515	SM 2320B	WET/41501		
60144985014	DR-3_20130515	SM 2320B	WET/41501		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985001	MW-4 SHALLOW_20130516	SM 2540C	WET/41370		
60144985002	P13-102_20130516	SM 2540C	WET/41370		
60144985003	MW-4 DEEP_20130516	SM 2540C	WET/41370		
60144985004	P13-103_20130516	SM 2540C	WET/41370		
60144985005	MW-1 DEEP_20130516	SM 2540C	WET/41370		
60144985006	MW-1 SHALLOW_20130516	SM 2540C	WET/41370		
60144985007	MW-204_20130516	SM 2540C	WET/41370		
60144985008	MW-102_20130515	SM 2540C	WET/41370		
60144985009	MW-101_20130515	SM 2540C	WET/41370		
60144985010	GW-7_20130515	SM 2540C	WET/41370		
60144985011	MW-6 DEEP_20130515	SM 2540C	WET/41370		
60144985012	MW-6 SHALLOW_20130515	SM 2540C	WET/41370		
60144985013	DR-8_20130515	SM 2540C	WET/41370		
60144985014	DR-3_20130515	SM 2540C	WET/41370		
60144985001	MW-4 SHALLOW_20130516	SM 2540D	WET/41380		
60144985002	P13-102_20130516	SM 2540D	WET/41380		
60144985003	MW-4 DEEP_20130516	SM 2540D	WET/41380		
60144985004	P13-103_20130516	SM 2540D	WET/41380		
60144985005	MW-1 DEEP_20130516	SM 2540D	WET/41380		
60144985006	MW-1 SHALLOW_20130516	SM 2540D	WET/41380		
60144985007	MW-204_20130516	SM 2540D	WET/41380		
60144985008	MW-102_20130515	SM 2540D	WET/41380		
60144985009	MW-101_20130515	SM 2540D	WET/41380		
60144985010	GW-7_20130515	SM 2540D	WET/41380		
60144985011	MW-6 DEEP_20130515	SM 2540D	WET/41380		
60144985012	MW-6 SHALLOW_20130515	SM 2540D	WET/41380		
60144985013	DR-8_20130515	SM 2540D	WET/41380		
60144985014	DR-3_20130515	SM 2540D	WET/41380		
60144985001	MW-4 SHALLOW_20130516	SM 4500-S-2 D	WET/41423		
60144985002	P13-102_20130516	SM 4500-S-2 D	WET/41423		
60144985003	MW-4 DEEP_20130516	SM 4500-S-2 D	WET/41423		
60144985004	P13-103_20130516	SM 4500-S-2 D	WET/41423		
60144985005	MW-1 DEEP_20130516	SM 4500-S-2 D	WET/41423		
60144985006	MW-1 SHALLOW_20130516	SM 4500-S-2 D	WET/41423		
60144985007	MW-204_20130516	SM 4500-S-2 D	WET/41424		
60144985008	MW-102_20130515	SM 4500-S-2 D	WET/41369		
60144985009	MW-101_20130515	SM 4500-S-2 D	WET/41369		
60144985010	GW-7_20130515	SM 4500-S-2 D	WET/41369		
60144985011	MW-6 DEEP_20130515	SM 4500-S-2 D	WET/41369		
60144985012	MW-6 SHALLOW_20130515	SM 4500-S-2 D	WET/41369		
60144985013	DR-8_20130515	SM 4500-S-2 D	WET/41369		
60144985014	DR-3_20130515	SM 4500-S-2 D	WET/41369		
60144985001	MW-4 SHALLOW_20130516	EPA 300.0	WETA/24929		
60144985002	P13-102_20130516	EPA 300.0	WETA/24929		
60144985003	MW-4 DEEP_20130516	EPA 300.0	WETA/24929		
60144985004	P13-103_20130516	EPA 300.0	WETA/24929		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985005	MW-1 DEEP_20130516	EPA 300.0	WETA/24929		
60144985006	MW-1 SHALLOW_20130516	EPA 300.0	WETA/24929		
60144985007	MW-204_20130516	EPA 300.0	WETA/24929		
60144985008	MW-102_20130515	EPA 300.0	WETA/24929		
60144985009	MW-101_20130515	EPA 300.0	WETA/24929		
60144985010	GW-7_20130515	EPA 300.0	WETA/24929		
60144985011	MW-6 DEEP_20130515	EPA 300.0	WETA/24929		
60144985012	MW-6 SHALLOW_20130515	EPA 300.0	WETA/24929		
60144985013	DR-8_20130515	EPA 300.0	WETA/24929		
60144985014	DR-3_20130515	EPA 300.0	WETA/24929		
60144985001	MW-4 SHALLOW_20130516	EPA 353.2	WETA/24877		
60144985002	P13-102_20130516	EPA 353.2	WETA/24877		
60144985003	MW-4 DEEP_20130516	EPA 353.2	WETA/24877		
60144985004	P13-103_20130516	EPA 353.2	WETA/24877		
60144985005	MW-1 DEEP_20130516	EPA 353.2	WETA/24877		
60144985006	MW-1 SHALLOW_20130516	EPA 353.2	WETA/24877		
60144985007	MW-204_20130516	EPA 353.2	WETA/24877		
60144985008	MW-102_20130515	EPA 353.2	WETA/24877		
60144985009	MW-101_20130515	EPA 353.2	WETA/24877		
60144985010	GW-7_20130515	EPA 353.2	WETA/24877		
60144985011	MW-6 DEEP_20130515	EPA 353.2	WETA/24877		
60144985012	MW-6 SHALLOW_20130515	EPA 353.2	WETA/24877		
60144985013	DR-8_20130515	EPA 353.2	WETA/24877		
60144985014	DR-3_20130515	EPA 353.2	WETA/24877		
60144985001	MW-4 SHALLOW_20130516	SM 4500-CN-E	WETA/24790		
60144985002	P13-102_20130516	SM 4500-CN-E	WETA/24790		
60144985003	MW-4 DEEP_20130516	SM 4500-CN-E	WETA/24790		
60144985004	P13-103_20130516	SM 4500-CN-E	WETA/24790		
60144985005	MW-1 DEEP_20130516	SM 4500-CN-E	WETA/24790		
60144985006	MW-1 SHALLOW_20130516	SM 4500-CN-E	WETA/24790		
60144985007	MW-204_20130516	SM 4500-CN-E	WETA/24790		
60144985008	MW-102_20130515	SM 4500-CN-E	WETA/24790		
60144985009	MW-101_20130515	SM 4500-CN-E	WETA/24790		
60144985010	GW-7_20130515	SM 4500-CN-E	WETA/24790		
60144985011	MW-6 DEEP_20130515	SM 4500-CN-E	WETA/24790		
60144985012	MW-6 SHALLOW_20130515	SM 4500-CN-E	WETA/24790		
60144985013	DR-8_20130515	SM 4500-CN-E	WETA/24790		
60144985014	DR-3_20130515	SM 4500-CN-E	WETA/24790		
60144985001	MW-4 SHALLOW_20130516	SM 5310C	WETA/24988		
60144985002	P13-102_20130516	SM 5310C	WETA/24988		
60144985003	MW-4 DEEP_20130516	SM 5310C	WETA/24988		
60144985004	P13-103_20130516	SM 5310C	WETA/24988		
60144985005	MW-1 DEEP_20130516	SM 5310C	WETA/24988		
60144985006	MW-1 SHALLOW_20130516	SM 5310C	WETA/24988		
60144985007	MW-204_20130516	SM 5310C	WETA/24988		
60144985008	MW-102_20130515	SM 5310C	WETA/24988		
60144985009	MW-101_20130515	SM 5310C	WETA/24988		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60144985

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60144985010	GW-7_20130515	SM 5310C	WETA/24988		
60144985011	MW-6 DEEP_20130515	SM 5310C	WETA/24988		
60144985012	MW-6 SHALLOW_20130515	SM 5310C	WETA/24988		
60144985013	DR-8_20130515	SM 5310C	WETA/24988		
60144985014	DR-3_20130515	SM 5310C	WETA/24988		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch: MERP/8563 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

METHOD BLANK: 1444462 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury	ug/L	ND	0.20	06/05/13 16:02	

LABORATORY CONTROL SAMPLE: 1444463

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1444464 1444465

Parameter	Units	4078347002	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Mercury	ug/L	ND	5	5	4.9	4.8	99	96	85-115	85-115	2	30		

MATRIX SPIKE SAMPLE: 1444466

Parameter	Units	60145450023	Spike	MS	MS	MS	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Conc.	Result	% Rec									
Mercury	ug/L	ND	5	5	5.0	99	99	96	85-115	85-115	2	30		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MERP/8551	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1444344 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	06/05/13 17:08	

LABORATORY CONTROL SAMPLE: 1444345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1444346 1444347

Parameter	Units	60145328001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	5.0	5.0	99	101	85-115	2	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MERP/7397	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury, Potentially Dissolved
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1198901 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	06/05/13 13:34	

LABORATORY CONTROL SAMPLE: 1198902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.8	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1198903 1198904

Parameter	Units	60145328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	5.0	5.0	99	100	70-130	1	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch: MPRP/22905

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Potentially Dissolved Metals

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

METHOD BLANK: 1198762

Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Calcium, Dissolved	ug/L	29.9J	100	06/05/13 12:51	
Magnesium, Dissolved	ug/L	ND	50.0	06/05/13 12:51	
Potassium, Dissolved	ug/L	71.9J	500	06/05/13 12:51	
Sodium, Dissolved	ug/L	427J	500	06/05/13 12:51	

LABORATORY CONTROL SAMPLE: 1198763

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	ug/L	10000	10100	101	85-115	
Magnesium, Dissolved	ug/L	10000	9900	99	85-115	
Potassium, Dissolved	ug/L	10000	10100	101	85-115	
Sodium, Dissolved	ug/L	10000	11300	113	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1198764 1198765

Parameter	Units	60145328001 Result	MS Spike	MSD Spike	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
			Conc.	Conc.								
Calcium, Dissolved	ug/L	17500	10000	10000	27100	27200	96	97	70-130	0	20	
Magnesium, Dissolved	ug/L	2670	10000	10000	12500	12500	98	98	70-130	0	20	
Potassium, Dissolved	ug/L	462J	10000	10000	10400	10400	99	100	70-130	1	20	
Sodium, Dissolved	ug/L	1470	10000	10000	11500	11600	100	101	70-130	1	20	

MATRIX SPIKE SAMPLE: 1198766

Parameter	Units	60145328002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
			Conc.	Result	% Rec		
Calcium, Dissolved	ug/L	17600	10000	27400	98	70-130	
Magnesium, Dissolved	ug/L	2690	10000	12600	100	70-130	
Potassium, Dissolved	ug/L	448J	10000	10600	101	70-130	
Sodium, Dissolved	ug/L	1410	10000	11700	103	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MPRP/39496	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1442114 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	4.0	06/14/13 10:49	
Antimony	ug/L	ND	0.50	06/14/13 10:49	
Arsenic	ug/L	ND	0.50	06/14/13 10:49	
Barium	ug/L	ND	0.30	06/14/13 10:49	
Beryllium	ug/L	ND	0.20	06/14/13 10:49	
Cadmium	ug/L	ND	0.080	06/14/13 10:49	
Calcium	ug/L	ND	20.0	06/14/13 10:49	
Chromium	ug/L	ND	0.50	06/14/13 10:49	
Cobalt	ug/L	ND	0.50	06/14/13 10:49	
Copper	ug/L	ND	0.50	06/14/13 10:49	
Iron	ug/L	ND	50.0	06/14/13 10:49	
Lead	ug/L	ND	0.10	06/14/13 10:49	
Magnesium	ug/L	ND	5.0	06/14/13 10:49	
Manganese	ug/L	ND	0.50	06/14/13 10:49	
Molybdenum	ug/L	ND	0.50	06/14/13 10:49	
Nickel	ug/L	ND	0.50	06/14/13 10:49	
Potassium	ug/L	ND	20.0	06/14/13 10:49	
Selenium	ug/L	ND	0.50	06/14/13 10:49	
Silver	ug/L	ND	0.50	06/14/13 10:49	
Sodium	ug/L	ND	50.0	06/14/13 10:49	
Thallium	ug/L	ND	0.10	06/14/13 10:49	
Vanadium	ug/L	ND	0.10	06/14/13 10:49	
Zinc	ug/L	ND	5.0	06/14/13 10:49	

LABORATORY CONTROL SAMPLE: 1442115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	80	77.8	97	85-115	
Antimony	ug/L	80	75.8	95	85-115	
Arsenic	ug/L	80	76.3	95	85-115	
Barium	ug/L	80	75.1	94	85-115	
Beryllium	ug/L	80	76.7	96	85-115	
Cadmium	ug/L	80	75.8	95	85-115	
Calcium	ug/L	1000	952	95	85-115	
Chromium	ug/L	80	76.6	96	85-115	
Cobalt	ug/L	80	74.8	94	85-115	
Copper	ug/L	80	78.8	98	85-115	
Iron	ug/L	1000	934	93	85-115	
Lead	ug/L	80	75.4	94	85-115	
Magnesium	ug/L	1000	937	94	85-115	
Manganese	ug/L	80	76.0	95	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

**LABORATORY CONTROL SAMPLE:** 1442115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	80	75.0	94	85-115	
Nickel	ug/L	80	76.3	95	85-115	
Potassium	ug/L	1000	915	92	85-115	
Selenium	ug/L	80	75.5	94	85-115	
Silver	ug/L	80	76.0	95	85-115	
Sodium	ug/L	1000	909	91	85-115	
Thallium	ug/L	80	76.2	95	85-115	
Vanadium	ug/L	80	74.6	93	85-115	
Zinc	ug/L	80	78.8	98	85-115	

**MATRIX SPIKE SAMPLE:** 1442118

Parameter	Units	60145328003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	13100	80	13800	888	70-130	M1
Antimony	ug/L	3.5	80	70.6	84	70-130	
Arsenic	ug/L	284	80	365	101	70-130	
Barium	ug/L	115	80	199	105	70-130	
Beryllium	ug/L	1.5	80	74.5	91	70-130	
Cadmium	ug/L	123	80	196	91	70-130	
Calcium	ug/L	605000	1000	592000	-1310	70-130	E,M1
Chromium	ug/L	22.4	80	96.8	93	70-130	
Cobalt	ug/L	42.5	80	119	95	70-130	
Copper	ug/L	1740	80	1840	121	70-130	
Iron	ug/L	79400	1000	81300	185	70-130	M1
Lead	ug/L	17200	80	16900	-335	70-130	E,M1
Magnesium	ug/L	53700	1000	53800	10	70-130	M1
Manganese	ug/L	10400	80	10700	346	70-130	E,M1
Molybdenum	ug/L	26.0	80	90.2	80	70-130	
Nickel	ug/L	57.6	80	134	96	70-130	
Potassium	ug/L	8240	1000	9180	94	70-130	
Selenium	ug/L	3.5	80	70.9	84	70-130	
Silver	ug/L	72.8	80	148	94	70-130	
Sodium	ug/L	7360	1000	8200	84	70-130	
Thallium	ug/L	2.2	80	74.4	90	70-130	
Vanadium	ug/L	21.3	80	96.1	94	70-130	
Zinc	ug/L	36500	80	38300	2280	70-130	E,M1

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1456747      1456748

Parameter	Units	10229566043 Result	MS Spike Conc.	MS Spike Conc.	MS Result	MS % Rec	MSD % Rec	% Rec Limits	Max		
			Conc.	Conc.					RPD	RPD	Qual
Aluminum	ug/L	35.5 mg/L	80	80	38800	40900	4190	6740	70-130	5	20 M1
Antimony	ug/L	2.3J	80	80	49.5	50.9	59	61	70-130	3	20 M1
Arsenic	ug/L	0.052 mg/L	80	80	126	131	93	99	70-130	4	20

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Parameter	Units	10229566043		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max	
		Result	Spike Conc.	Spike Conc.	Result						RPD	RPD
Barium	ug/L	630	80	80	710	734	101	131	70-130	3	20	M1
Beryllium	ug/L	2.1	80	80	75.8	79.0	92	96	70-130	4	20	
Cadmium	ug/L	0.0040 mg/L	80	80	79.0	81.4	94	97	70-130	3	20	
Calcium	ug/L	55900	1000	1000	59000	60000	305	415	70-130	2	20	M1
Chromium	ug/L	57.2	80	80	130	138	92	101	70-130	6	20	
Cobalt	ug/L	22.2	80	80	97.2	100	94	98	70-130	3	20	
Copper	ug/L	0.52 mg/L	80	80	600	616	101	121	70-130	3	20	
Iron	ug/L	42.7 mg/L	1000	1000	43500	46100	76	331	70-130	6	20	M1
Lead	ug/L	0.35 mg/L	80	80	430	446	104	124	70-130	4	20	
Magnesium	ug/L	36900	1000	1000	38600	39200	172	234	70-130	2	20	M1
Manganese	ug/L	2530	80	80	2640	2720	136	236	70-130	3	20	E,M1
Molybdenum	ug/L	6.9	80	80	66.8	71.8	75	81	70-130	7	20	
Nickel	ug/L	41.2	80	80	118	123	97	102	70-130	3	20	
Potassium	ug/L	17400	1000	1000	18100	18800	76	142	70-130	4	20	M1
Selenium	ug/L	2.2J	80	80	70.2	71.8	85	87	70-130	2	20	
Silver	ug/L	0.0016J mg/L	80	80	64.0	69.5	78	85	70-130	8	20	
Sodium	ug/L	12300	1000	1000	13700	14000	140	168	70-130	2	20	M1
Thallium	ug/L	0.90	80	80	71.8	75.1	89	93	70-130	5	20	
Vanadium	ug/L	102	80	80	178	185	94	103	70-130	4	20	
Zinc	ug/L	1.9 mg/L	80	80	2050	2090	179	226	70-130	2	20	M1

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MPRP/39564	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1444205                                  Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	4.0	06/13/13 14:18	
Antimony, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Arsenic, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Barium, Dissolved	ug/L	ND	0.30	06/13/13 14:18	
Beryllium, Dissolved	ug/L	ND	0.20	06/13/13 14:18	
Cadmium, Dissolved	ug/L	ND	0.080	06/13/13 14:18	
Calcium, Dissolved	ug/L	ND	20.0	06/13/13 14:18	
Chromium, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Cobalt, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Copper, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Iron, Dissolved	ug/L	ND	50.0	06/13/13 14:18	
Lead, Dissolved	ug/L	ND	0.10	06/13/13 14:18	
Magnesium, Dissolved	ug/L	ND	5.0	06/13/13 14:18	
Manganese, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Molybdenum, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Nickel, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Potassium, Dissolved	ug/L	ND	20.0	06/13/13 14:18	
Selenium, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Silver, Dissolved	ug/L	ND	0.50	06/13/13 14:18	
Sodium, Dissolved	ug/L	ND	50.0	06/13/13 14:18	
Thallium, Dissolved	ug/L	ND	0.10	06/13/13 14:18	
Vanadium, Dissolved	ug/L	ND	0.10	06/13/13 14:18	
Zinc, Dissolved	ug/L	ND	5.0	06/13/13 14:18	

LABORATORY CONTROL SAMPLE: 1444206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	80	85.8	107	85-115	
Antimony, Dissolved	ug/L	80	81.9	102	85-115	
Arsenic, Dissolved	ug/L	80	83.4	104	85-115	
Barium, Dissolved	ug/L	80	82.1	103	85-115	
Beryllium, Dissolved	ug/L	80	86.9	109	85-115	
Cadmium, Dissolved	ug/L	80	83.0	104	85-115	
Calcium, Dissolved	ug/L	1000	1040	104	85-115	
Chromium, Dissolved	ug/L	80	82.9	104	85-115	
Cobalt, Dissolved	ug/L	80	81.4	102	85-115	
Copper, Dissolved	ug/L	80	84.2	105	85-115	
Iron, Dissolved	ug/L	1000	1020	102	85-115	
Lead, Dissolved	ug/L	80	81.8	102	85-115	
Magnesium, Dissolved	ug/L	1000	1020	102	85-115	
Manganese, Dissolved	ug/L	80	81.8	102	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

LABORATORY CONTROL SAMPLE: 1444206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum, Dissolved	ug/L	80	81.2	101	85-115	
Nickel, Dissolved	ug/L	80	84.2	105	85-115	
Potassium, Dissolved	ug/L	1000	1020	102	85-115	
Selenium, Dissolved	ug/L	80	82.2	103	85-115	
Silver, Dissolved	ug/L	80	81.6	102	85-115	
Sodium, Dissolved	ug/L	1000	982	98	85-115	
Thallium, Dissolved	ug/L	80	83.9	105	85-115	
Vanadium, Dissolved	ug/L	80	82.9	104	85-115	
Zinc, Dissolved	ug/L	80	84.2	105	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1444207 1444208

Parameter	Units	10229566041 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Max Qual
Aluminum, Dissolved	ug/L	0.16 mg/L	80	80	152	109	-14	-68	70-130	33	20	M1,R1
Antimony, Dissolved	ug/L	0.45J	80	80	87.3	85.7	109	107	70-130	2	20	
Arsenic, Dissolved	ug/L	0.0024 mg/L	80	80	91.4	88.8	111	108	70-130	3	20	
Barium, Dissolved	ug/L	41.3	80	80	129	126	110	106	70-130	2	20	
Beryllium, Dissolved	ug/L	0.18J	80	80	87.6	85.7	109	107	70-130	2	20	
Cadmium, Dissolved	ug/L	0.0061 mg/L	80	80	92.6	89.2	108	104	70-130	4	20	
Calcium, Dissolved	ug/L	124 mg/L	1000	1000	125000	123000	52	-133	70-130	1	20	E,M1
Chromium, Dissolved	ug/L	5.3	80	80	87.8	84.4	103	99	70-130	4	20	
Cobalt, Dissolved	ug/L	1.2	80	80	85.9	83.6	106	103	70-130	3	20	
Copper, Dissolved	ug/L	0.066 mg/L	80	80	131	114	80	59	70-130	14	20	M1
Iron, Dissolved	ug/L	1.9 mg/L	1000	1000	1560	1130	-29	-72	70-130	32	20	M1,R1
Lead, Dissolved	ug/L	0.013 mg/L	80	80	87.2	82.5	93	87	70-130	6	20	
Magnesium, Dissolved	ug/L	30.8 mg/L	1000	1000	33500	33100	273	228	70-130	1	20	M1
Manganese, Dissolved	ug/L	502	80	80	566	550	81	61	70-130	3	20	M1
Molybdenum, Dissolved	ug/L	2.6	80	80	88.1	84.3	107	102	70-130	4	20	
Nickel, Dissolved	ug/L	5.0	80	80	92.0	88.8	109	105	70-130	3	20	
Potassium, Dissolved	ug/L	6.3 mg/L	1000	1000	7600	7510	130	121	70-130	1	20	
Selenium, Dissolved	ug/L	0.33J	80	80	87.2	85.6	109	107	70-130	2	20	
Silver, Dissolved	ug/L	0.00011 J mg/L	80	80	19.3	20.2	24	25	70-130	5	20	M1
Sodium, Dissolved	ug/L	39.9 mg/L	1000	1000	33200	32800	-670	-716	70-130	1	20	M1
Thallium, Dissolved	ug/L	ND	80	80	85.3	83.5	107	104	70-130	2	20	
Vanadium, Dissolved	ug/L	1.7	80	80	87.8	86.6	108	106	70-130	1	20	
Zinc, Dissolved	ug/L	3.1 mg/L	80	80	3110	3040	63	-32	70-130	2	20	E,M1

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

MATRIX SPIKE SAMPLE: 1444209

Parameter	Units	60145328003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	147	80	260	141	70-130	M1
Antimony, Dissolved	ug/L	ND	80	84.6	106	70-130	
Arsenic, Dissolved	ug/L	56.2	80	141	106	70-130	
Barium, Dissolved	ug/L	17.9	80	103	106	70-130	
Beryllium, Dissolved	ug/L	ND	80	82.8	103	70-130	
Cadmium, Dissolved	ug/L	1.7	80	86.3	106	70-130	
Calcium, Dissolved	ug/L	614000	1000	607000	-700	70-130	E,M1
Chromium, Dissolved	ug/L	1.3	80	83.4	103	70-130	
Cobalt, Dissolved	ug/L	11.1	80	93.8	103	70-130	
Copper, Dissolved	ug/L	24.5	80	107	103	70-130	
Iron, Dissolved	ug/L	8180	1000	9210	103	70-130	
Lead, Dissolved	ug/L	191	80	275	105	70-130	
Magnesium, Dissolved	ug/L	46200	1000	48400	222	70-130	M1
Manganese, Dissolved	ug/L	6720	80	6740	21	70-130	E,M1
Molybdenum, Dissolved	ug/L	9.6	80	93.8	105	70-130	
Nickel, Dissolved	ug/L	15.9	80	101	106	70-130	
Potassium, Dissolved	ug/L	6140	1000	7200	105	70-130	
Selenium, Dissolved	ug/L	ND	80	88.2	110	70-130	
Silver, Dissolved	ug/L	ND	80	71.6	89	70-130	
Sodium, Dissolved	ug/L	7510	1000	8500	99	70-130	
Thallium, Dissolved	ug/L	ND	80	81.7	102	70-130	
Vanadium, Dissolved	ug/L	0.21	80	84.2	105	70-130	
Zinc, Dissolved	ug/L	11600	80	11500	-100	70-130	E,M1

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MPRP/22907	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007		

METHOD BLANK: 1198772 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	50.0	06/05/13 09:29	
Antimony, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Arsenic, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Barium, Dissolved	ug/L	0.50J	1.0	06/05/13 09:29	
Beryllium, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Cadmium, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Chromium, Dissolved	ug/L	0.76J	1.0	06/05/13 09:29	
Cobalt, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Copper, Dissolved	ug/L	1.1	1.0	06/05/13 09:29	
Iron, Dissolved	ug/L	11.1J	50.0	06/05/13 09:29	
Lead, Dissolved	ug/L	0.11J	1.0	06/05/13 09:29	
Manganese, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Molybdenum, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Nickel, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Selenium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Silver, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Thallium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Vanadium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Zinc, Dissolved	ug/L	37.8	10.0	06/05/13 09:29	

LABORATORY CONTROL SAMPLE: 1198773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	1000	1030	103	85-115	
Antimony, Dissolved	ug/L	40	42.7	107	85-115	
Arsenic, Dissolved	ug/L	40	40.4	101	85-115	
Barium, Dissolved	ug/L	40	42.4	106	85-115	
Beryllium, Dissolved	ug/L	40	43.1	108	85-115	
Cadmium, Dissolved	ug/L	40	41.5	104	85-115	
Chromium, Dissolved	ug/L	40	40.3	101	85-115	
Cobalt, Dissolved	ug/L	40	39.8	99	85-115	
Copper, Dissolved	ug/L	40	40.1	100	85-115	
Iron, Dissolved	ug/L	1000	1010	101	85-115	
Lead, Dissolved	ug/L	40	40.9	102	85-115	
Manganese, Dissolved	ug/L	40	40.7	102	85-115	
Molybdenum, Dissolved	ug/L	40	40.9	102	85-115	
Nickel, Dissolved	ug/L	40	39.8	100	85-115	
Selenium, Dissolved	ug/L	40	40.6	102	85-115	
Silver, Dissolved	ug/L	20	20.1	100	85-115	
Thallium, Dissolved	ug/L	40	39.2	98	85-115	
Vanadium, Dissolved	ug/L	40	40.7	102	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

LABORATORY CONTROL SAMPLE: 1198773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Zinc, Dissolved	ug/L	100	105	105	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1198774 1198775

Parameter	Units	60145328003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Aluminum, Dissolved	ug/L	7240	1000	1000	8270	8150	103	90	70-130	1	20	
Antimony, Dissolved	ug/L	1.9	40	40	45.7	45.7	110	110	70-130	0	20	
Arsenic, Dissolved	ug/L	191	40	40	238	235	118	112	70-130	1	20	
Barium, Dissolved	ug/L	14.1	40	40	57.5	57.9	109	109	70-130	1	20	
Beryllium, Dissolved	ug/L	1.1	40	40	36.4	35.7	88	87	70-130	2	20	
Cadmium, Dissolved	ug/L	90.3	40	40	133	132	107	104	70-130	1	20	
Chromium, Dissolved	ug/L	10	40	40	48.5	49.0	96	97	70-130	1	20	
Cobalt, Dissolved	ug/L	25.4	40	40	64.3	64.4	97	97	70-130	0	20	
Copper, Dissolved	ug/L	930	40	40	980	985	125	139	70-130	1	20	M1
Iron, Dissolved	ug/L	40200	1000	1000	42000	41900	180	172	70-130	0	20	M1
Lead, Dissolved	ug/L	4800	40	40	4880	4860	200	162	70-130	0	20	M1
Manganese, Dissolved	ug/L	8580	40	40	8230	8430	-865	-368	70-130	2	20	M1
Molybdenum, Dissolved	ug/L	8.2	40	40	51.0	51.6	107	109	70-130	1	20	
Nickel, Dissolved	ug/L	36.8	40	40	75.4	74.9	96	95	70-130	1	20	
Selenium, Dissolved	ug/L	1.3	40	40	45.8	45.5	111	110	70-130	1	20	
Silver, Dissolved	ug/L	0.54	20	20	19.7	19.8	96	97	70-130	1	20	
Thallium, Dissolved	ug/L	0.92J	40	40	39.1	39.4	95	96	70-130	1	20	
Vanadium, Dissolved	ug/L	12.8	40	40	53.7	54.2	102	103	70-130	1	20	
Zinc, Dissolved	ug/L	29700	100	100	28200	29000	-1560	-690	70-130	3	20	M1

MATRIX SPIKE SAMPLE: 1198776

Parameter	Units	60145328004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	14400	1000	15300	84	70-130	
Antimony, Dissolved	ug/L	1.6	40	45.1	109	70-130	
Arsenic, Dissolved	ug/L	228	40	272	111	70-130	
Barium, Dissolved	ug/L	22.6	40	66.0	108	70-130	
Beryllium, Dissolved	ug/L	3.0	40	36.5	84	70-130	
Cadmium, Dissolved	ug/L	67.3	40	108	103	70-130	
Chromium, Dissolved	ug/L	21.6	40	61.7	100	70-130	
Cobalt, Dissolved	ug/L	23.3	40	61.4	95	70-130	
Copper, Dissolved	ug/L	689	40	734	114	70-130	
Iron, Dissolved	ug/L	95000	1000	96600	150	70-130	M1
Lead, Dissolved	ug/L	6560	40	6650	210	70-130	M1
Manganese, Dissolved	ug/L	11100	40	11300	525	70-130	M1
Molybdenum, Dissolved	ug/L	3.3	40	46.4	108	70-130	
Nickel, Dissolved	ug/L	32.3	40	70.8	96	70-130	
Selenium, Dissolved	ug/L	2.1	40	45.1	108	70-130	
Silver, Dissolved	ug/L	0.16J	20	19.3	96	70-130	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

MATRIX SPIKE SAMPLE: 1198776

Parameter	Units	60145328004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium, Dissolved	ug/L	1.2	40	39.5	96	70-130	
Vanadium, Dissolved	ug/L	36.4	40	77.4	102	70-130	
Zinc, Dissolved	ug/L	19400	100	19500	50	70-130 M1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MPRP/22960	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145328002, 60145328005, 60145328006		

METHOD BLANK:	1200114	Matrix:	Water
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Associated Lab Samples: 60145328002, 60145328005, 60145328006

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Chromium, Dissolved	ug/L	0.24J	1.0	06/07/13 15:03	
Copper, Dissolved	ug/L	ND	1.0	06/07/13 15:03	
Zinc, Dissolved	ug/L	1.6J	10.0	06/07/13 15:03	

LABORATORY CONTROL SAMPLE: 1200115

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chromium, Dissolved	ug/L	40	42.9	107	85-115	
Copper, Dissolved	ug/L	40	43.2	108	85-115	
Zinc, Dissolved	ug/L	100	114	114	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200116 1200117

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual	
		60145328002	Spike	Spike	Result	Result	% Rec	Limits	RPD	RPD	Qual			
Chromium, Dissolved	ug/L	0.78J	40	40	42.1	41.5	103	102	70-130	1	20			
Copper, Dissolved	ug/L	1.7	40	40	41.5	41.2	100	99	70-130	1	20			
Zinc, Dissolved	ug/L	3.5J	100	100	107	107	103	103	70-130	0	20			

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MPRP/23023	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145328001		

METHOD BLANK: 1202680 Matrix: Water

Associated Lab Samples: 60145328001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	0.32J	1.0	06/12/13 10:50	
Copper, Dissolved	ug/L	ND	1.0	06/12/13 10:50	
Zinc, Dissolved	ug/L	ND	10.0	06/12/13 10:50	

LABORATORY CONTROL SAMPLE: 1202681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	40	40.6	102	85-115	
Copper, Dissolved	ug/L	40	40.1	100	85-115	
Zinc, Dissolved	ug/L	100	108	108	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1202682 1202683

Parameter	Units	MS		MSD		MS Result	MS % Rec	MSD Result	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		60145328001	Spike Conc.	Spike Conc.	MS Result								
Chromium, Dissolved	ug/L	0.53J	40	40	41.0	41.8	101	103	70-130	2	20		
Copper, Dissolved	ug/L	1.3	40	40	40.6	41.4	98	100	70-130	2	20		
Zinc, Dissolved	ug/L	4.8J	100	100	106	104	101	99	70-130	2	20		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	MT/12124	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance
Associated Lab Samples:	60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007		

METHOD BLANK: 1442277 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	05/28/13 10:34	

LABORATORY CONTROL SAMPLE: 1442278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	978	98	90-110	

SAMPLE DUPLICATE: 1442279

Parameter	Units	60145328002 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	117	116	2	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WET/41558	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1196041 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/30/13 10:15	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	05/30/13 10:15	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/30/13 10:15	

LABORATORY CONTROL SAMPLE: 1196042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	504	101	90-110	

SAMPLE DUPLICATE: 1196045

Parameter	Units	60145417006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	ND		10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 1196046

Parameter	Units	60145328003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	210	213	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	210	213	1	10	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WET/41478	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007		

METHOD BLANK: 1193467 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	05/24/13 13:01	

LABORATORY CONTROL SAMPLE: 1193468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	995	100	80-120	

SAMPLE DUPLICATE: 1193469

Parameter	Units	60145328001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	82.0	1	17	

SAMPLE DUPLICATE: 1193470

Parameter	Units	60145285003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	437	439	0	17	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WET/41476	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007		

METHOD BLANK: 1193446 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/24/13 10:57	

SAMPLE DUPLICATE: 1193447

Parameter	Units	60145326001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	16.0	16.0	0	25	

SAMPLE DUPLICATE: 1193448

Parameter	Units	60145265001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	482	478	1	25	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch: WET/41488 Analysis Method: SM 4500-S-2 D

QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

METHOD BLANK: 1193870 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	05/24/13 14:35	

LABORATORY CONTROL SAMPLE: 1193871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.48	97	80-120	

MATRIX SPIKE SAMPLE: 1193872

Parameter	Units	60145313001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	0.096	.5	0.65	111	75-125	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WETA/24995	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1199831 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	06/06/13 09:10	
Sulfate	mg/L	ND	1.0	06/06/13 09:10	

METHOD BLANK: 1200751 Matrix: Water

Associated Lab Samples: 60145328005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	06/07/13 09:10	

LABORATORY CONTROL SAMPLE: 1199832

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	97	90-110	
Sulfate	mg/L	5	4.7	93	90-110	

LABORATORY CONTROL SAMPLE: 1200752

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.2	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1199833 1199834

Parameter	Units	Result	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec Limits	RPD	RPD	Max
			60145328001	Spike Conc.	Spike Conc.	Result	% Rec	Qual					
Chloride	mg/L	ND	5	5	5	5.4	5.4	90	91	64-118	1	12	
Sulfate	mg/L	12.3	5	5	5	17.2	17.3	99	101	61-119	1	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WETA/24877	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	60145328001		

METHOD BLANK: 1195321 Matrix: Water

Associated Lab Samples: 60145328001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	0.10	05/29/13 10:23	

LABORATORY CONTROL SAMPLE: 1195322

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	2	2.1	103	90-110	

MATRIX SPIKE SAMPLE: 1195323

Parameter	Units	60145571002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	2	1.7	86	90-110	M1

MATRIX SPIKE SAMPLE: 1195325

Parameter	Units	60144985001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.33	2	2.4	103	90-110	

SAMPLE DUPLICATE: 1195324

Parameter	Units	60145258001 Result	Dup Result	Max RPD	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	3.9	3.9	0	13

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WETA/24878	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007		

METHOD BLANK: 1195328                          Matrix: Water

Associated Lab Samples: 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	0.10	05/29/13 10:49	

LABORATORY CONTROL SAMPLE: 1195329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	2	2.1	104	90-110	

MATRIX SPIKE SAMPLE: 1195330

Parameter	Units	60145328002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	2	2.1	105	90-110	

MATRIX SPIKE SAMPLE: 1195332

Parameter	Units	60145328004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.16	2	1.7	79	90-110	M1

SAMPLE DUPLICATE: 1195331

Parameter	Units	60145328003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.39	0.37	7	13	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch: WETA/24872 Analysis Method: SM 4500-CN-E

QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

METHOD BLANK: 1195029 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	05/28/13 16:24	

LABORATORY CONTROL SAMPLE: 1195030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	103	69-126	

MATRIX SPIKE SAMPLE: 1195031

Parameter	Units	60145328001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.095	95	41-136	

SAMPLE DUPLICATE: 1195032

Parameter	Units	60145450004 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		26	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

QC Batch:	WETA/25022	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007			

METHOD BLANK: 1200891 Matrix: Water

Associated Lab Samples: 60145328001, 60145328002, 60145328003, 60145328004, 60145328005, 60145328006, 60145328007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	06/07/13 10:39	

LABORATORY CONTROL SAMPLE: 1200892

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.2	103	80-120	

MATRIX SPIKE SAMPLE: 1200893

Parameter	Units	60145282002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	3.2	5	8.4	104	80-120	

SAMPLE DUPLICATE: 1200894

Parameter	Units	60145282003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	7.0	6.3	11	25	

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## QUALIFIERS

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145328001	DR-1_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328002	DR-9_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328003	GW-5_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328004	GW-6_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328005	MW-5 SHALLOW_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328006	MW-5 DEEP_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328007	BAH-01_20130521	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145328001	DR-1_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328002	DR-9_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328003	GW-5_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328004	GW-6_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328005	MW-5 SHALLOW_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328006	MW-5 DEEP_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328007	BAH-01_20130521	EPA 200.8	MPRP/39496	EPA 200.8	ICPM/16377
60145328001	DR-1_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328002	DR-9_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328003	GW-5_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328004	GW-6_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328005	MW-5 SHALLOW_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328006	MW-5 DEEP_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328007	BAH-01_20130521	EPA 200.8	MPRP/39564	EPA 200.8	ICPM/16401
60145328001	DR-1_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328001	DR-1_20130521	EPA 200.8	MPRP/23023	EPA 200.8	ICPM/2316
60145328002	DR-9_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328002	DR-9_20130521	EPA 200.8	MPRP/22960	EPA 200.8	ICPM/2307
60145328003	GW-5_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328004	GW-6_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328005	MW-5 SHALLOW_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328005	MW-5 SHALLOW_20130521	EPA 200.8	MPRP/22960	EPA 200.8	ICPM/2307
60145328006	MW-5 DEEP_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328006	MW-5 DEEP_20130521	EPA 200.8	MPRP/22960	EPA 200.8	ICPM/2307
60145328007	BAH-01_20130521	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145328001	DR-1_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328002	DR-9_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328003	GW-5_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328004	GW-6_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328005	MW-5 SHALLOW_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328006	MW-5 DEEP_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328007	BAH-01_20130521	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145328001	DR-1_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328002	DR-9_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328003	GW-5_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145328004	GW-6_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328005	MW-5 SHALLOW_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328006	MW-5 DEEP_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328007	BAH-01_20130521	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145328001	DR-1_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328002	DR-9_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328003	GW-5_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328004	GW-6_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328005	MW-5 SHALLOW_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328006	MW-5 DEEP_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328007	BAH-01_20130521	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145328001	DR-1_20130521	SM 2510B	MT/12124		
60145328002	DR-9_20130521	SM 2510B	MT/12124		
60145328003	GW-5_20130521	SM 2510B	MT/12124		
60145328004	GW-6_20130521	SM 2510B	MT/12124		
60145328005	MW-5 SHALLOW_20130521	SM 2510B	MT/12124		
60145328006	MW-5 DEEP_20130521	SM 2510B	MT/12124		
60145328007	BAH-01_20130521	SM 2510B	MT/12124		
60145328001	DR-1_20130521	Calculated	MT/12129		
60145328002	DR-9_20130521	Calculated	MT/12129		
60145328003	GW-5_20130521	Calculated	MT/12129		
60145328004	GW-6_20130521	Calculated	MT/12129		
60145328005	MW-5 SHALLOW_20130521	Calculated	MT/12129		
60145328006	MW-5 DEEP_20130521	Calculated	MT/12129		
60145328007	BAH-01_20130521	Calculated	MT/12129		
60145328001	DR-1_20130521	SM 2320B	WET/41558		
60145328002	DR-9_20130521	SM 2320B	WET/41558		
60145328003	GW-5_20130521	SM 2320B	WET/41558		
60145328004	GW-6_20130521	SM 2320B	WET/41558		
60145328005	MW-5 SHALLOW_20130521	SM 2320B	WET/41558		
60145328006	MW-5 DEEP_20130521	SM 2320B	WET/41558		
60145328007	BAH-01_20130521	SM 2320B	WET/41558		
60145328001	DR-1_20130521	SM 2540C	WET/41478		
60145328002	DR-9_20130521	SM 2540C	WET/41478		
60145328003	GW-5_20130521	SM 2540C	WET/41478		
60145328004	GW-6_20130521	SM 2540C	WET/41478		
60145328005	MW-5 SHALLOW_20130521	SM 2540C	WET/41478		
60145328006	MW-5 DEEP_20130521	SM 2540C	WET/41478		
60145328007	BAH-01_20130521	SM 2540C	WET/41478		
60145328001	DR-1_20130521	SM 2540D	WET/41476		
60145328002	DR-9_20130521	SM 2540D	WET/41476		
60145328003	GW-5_20130521	SM 2540D	WET/41476		
60145328004	GW-6_20130521	SM 2540D	WET/41476		
60145328005	MW-5 SHALLOW_20130521	SM 2540D	WET/41476		
60145328006	MW-5 DEEP_20130521	SM 2540D	WET/41476		
60145328007	BAH-01_20130521	SM 2540D	WET/41476		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145328001	DR-1_20130521	SM 4500-S-2 D	WET/41488		
60145328002	DR-9_20130521	SM 4500-S-2 D	WET/41488		
60145328003	GW-5_20130521	SM 4500-S-2 D	WET/41488		
60145328004	GW-6_20130521	SM 4500-S-2 D	WET/41488		
60145328005	MW-5 SHALLOW_20130521	SM 4500-S-2 D	WET/41488		
60145328006	MW-5 DEEP_20130521	SM 4500-S-2 D	WET/41488		
60145328007	BAH-01_20130521	SM 4500-S-2 D	WET/41488		
60145328001	DR-1_20130521	EPA 300.0	WETA/24995		
60145328002	DR-9_20130521	EPA 300.0	WETA/24995		
60145328003	GW-5_20130521	EPA 300.0	WETA/24995		
60145328004	GW-6_20130521	EPA 300.0	WETA/24995		
60145328005	MW-5 SHALLOW_20130521	EPA 300.0	WETA/24995		
60145328006	MW-5 DEEP_20130521	EPA 300.0	WETA/24995		
60145328007	BAH-01_20130521	EPA 300.0	WETA/24995		
60145328001	DR-1_20130521	EPA 353.2	WETA/24877		
60145328002	DR-9_20130521	EPA 353.2	WETA/24878		
60145328003	GW-5_20130521	EPA 353.2	WETA/24878		
60145328004	GW-6_20130521	EPA 353.2	WETA/24878		
60145328005	MW-5 SHALLOW_20130521	EPA 353.2	WETA/24878		
60145328006	MW-5 DEEP_20130521	EPA 353.2	WETA/24878		
60145328007	BAH-01_20130521	EPA 353.2	WETA/24878		
60145328001	DR-1_20130521	SM 4500-CN-E	WETA/24872		
60145328002	DR-9_20130521	SM 4500-CN-E	WETA/24872		
60145328003	GW-5_20130521	SM 4500-CN-E	WETA/24872		
60145328004	GW-6_20130521	SM 4500-CN-E	WETA/24872		
60145328005	MW-5 SHALLOW_20130521	SM 4500-CN-E	WETA/24872		
60145328006	MW-5 DEEP_20130521	SM 4500-CN-E	WETA/24872		
60145328007	BAH-01_20130521	SM 4500-CN-E	WETA/24872		
60145328001	DR-1_20130521	SM 5310C	WETA/25022		
60145328002	DR-9_20130521	SM 5310C	WETA/25022		
60145328003	GW-5_20130521	SM 5310C	WETA/25022		
60145328004	GW-6_20130521	SM 5310C	WETA/25022		
60145328005	MW-5 SHALLOW_20130521	SM 5310C	WETA/25022		
60145328006	MW-5 DEEP_20130521	SM 5310C	WETA/25022		
60145328007	BAH-01_20130521	SM 5310C	WETA/25022		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:

MERP/8562

Analysis Method:

EPA 245.1

QC Batch Method:

EPA 245.1

Analysis Description:

245.1 Mercury

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

METHOD BLANK: 1444456

Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury	ug/L	ND	0.20	06/09/13 15:59	

LABORATORY CONTROL SAMPLE: 1444457

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	5	5.6	113	85-115	

MATRIX SPIKE SAMPLE: 1444460

Parameter	Units	60145450020	Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	Limits	
Mercury	ug/L	ND	5	5.4	108	85-115	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1452034 1452035

Parameter	Units	60145450004	MS	MSD	MS	MSD	% Rec	% Rec	Max	Qual
		Result	Spike	Spike					RPD	
Mercury	ug/L	ND	5	5	5.4	5.6	108	113	85-115	4 30

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MERP/8563	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1444462 Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury	ug/L	ND	0.20	06/05/13 16:02	

LABORATORY CONTROL SAMPLE: 1444463

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1444464 1444465

Parameter	Units	4078347002	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Mercury	ug/L	ND	5	5	4.9	4.8	99	96	85-115	85-115	2	30		

MATRIX SPIKE SAMPLE: 1444466

Parameter	Units	60145450023	Spike	MS	MS	MS	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Conc.	Result	% Rec									
Mercury	ug/L	ND	5	5	5.0	99	99	96	85-115	85-115	2	30		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MERP/8550	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		

METHOD BLANK: 1444338 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury, Dissolved	ug/L	ND	0.20	06/10/13 10:17	

LABORATORY CONTROL SAMPLE: 1444339

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury, Dissolved	ug/L	5	4.6	93	85-115	

MATRIX SPIKE SAMPLE: 1444342

Parameter	Units	60145450020	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec		
Mercury, Dissolved	ug/L	ND	5	4.7	93	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1452044 1452045

Parameter	Units	60145450004	MS	MSD	MS	MS	% Rec	Limits	Max	Qual
		Result	Spike	Spike	Result	Result			% Rec	
Mercury, Dissolved	ug/L	ND	5	5	4.5	4.5	89	90	.7	20

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MERP/8551	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury - Dissolved
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1444344 Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	06/05/13 17:08	

LABORATORY CONTROL SAMPLE: 1444345

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.9	98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1444346 1444347

Parameter	Units	60145328001	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	5.0	5.0	99	101	85-115	2	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MERP/7397	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury, Potentially Dissolved
Associated Lab Samples:	60145450001, 60145450002, 60145450003		

METHOD BLANK: 1198901 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury, Dissolved	ug/L	ND	0.20	06/05/13 13:34	

LABORATORY CONTROL SAMPLE: 1198902

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	ug/L	5	4.8	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1198903 1198904

Parameter	Units	60145328001	MS Spike Result	MSD Spike Result	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Mercury, Dissolved	ug/L	ND	5	5	5.0	5.0	99	100	70-130	1	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MERP/7402	Analysis Method:	EPA 245.1
QC Batch Method:	EPA 245.1	Analysis Description:	245.1 Mercury, Potentially Dissolved
Associated Lab Samples:	60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1199405 Matrix: Water

Associated Lab Samples: 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Mercury, Dissolved	ug/L	ND	0.20	06/06/13 11:56	

LABORATORY CONTROL SAMPLE: 1199406

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury, Dissolved	ug/L	5	5.3	106	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1199407 1199408

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		60145450007	Spike										
Mercury, Dissolved	ug/L	ND	5	5	5.4	5.4	109	108	70-130	1	20		

MATRIX SPIKE SAMPLE: 1199409

Parameter	Units	60145450008		Spike	MS	MS	% Rec	% Rec	Qualifiers
		Result	Conc.	Conc.	Result	% Rec	Limits		
Mercury, Dissolved	ug/L	ND	5	5	5.3	106	70-130		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/22905	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 Potentially Dissolved Metals
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012		

METHOD BLANK: 1198762 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Calcium, Dissolved	ug/L	29.9J	100	06/05/13 12:51	
Magnesium, Dissolved	ug/L	ND	50.0	06/05/13 12:51	
Potassium, Dissolved	ug/L	71.9J	500	06/05/13 12:51	
Sodium, Dissolved	ug/L	427J	500	06/05/13 12:51	

LABORATORY CONTROL SAMPLE: 1198763

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Calcium, Dissolved	ug/L	10000	10100	101	85-115	
Magnesium, Dissolved	ug/L	10000	9900	99	85-115	
Potassium, Dissolved	ug/L	10000	10100	101	85-115	
Sodium, Dissolved	ug/L	10000	11300	113	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1198764 1198765

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		60145328001	Spike	Spike	Result	Result	% Rec	% Rec	% Rec	Limits	RPD	RPD	Qual
Calcium, Dissolved	ug/L	17500	10000	10000	27100	27200	96	97	70-130	0	20		
Magnesium, Dissolved	ug/L	2670	10000	10000	12500	12500	98	98	70-130	0	20		
Potassium, Dissolved	ug/L	462J	10000	10000	10400	10400	99	100	70-130	1	20		
Sodium, Dissolved	ug/L	1470	10000	10000	11500	11600	100	101	70-130	1	20		

MATRIX SPIKE SAMPLE: 1198766

Parameter	Units	60145328002	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	
Calcium, Dissolved	ug/L	17600	10000	27400	98	70-130	
Magnesium, Dissolved	ug/L	2690	10000	12600	100	70-130	
Potassium, Dissolved	ug/L	448J	10000	10600	101	70-130	
Sodium, Dissolved	ug/L	1410	10000	11700	103	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/22906	Analysis Method:	EPA 200.7
QC Batch Method:	EPA 200.7	Analysis Description:	200.7 Potentially Dissolved Metals
Associated Lab Samples:	60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1198767 Matrix: Water

Associated Lab Samples: 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019,  
60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Calcium, Dissolved	ug/L	ND	100	06/10/13 12:44	
Magnesium, Dissolved	ug/L	ND	50.0	06/10/13 12:44	
Potassium, Dissolved	ug/L	ND	500	06/10/13 12:44	
Sodium, Dissolved	ug/L	132J	500	06/10/13 12:44	

LABORATORY CONTROL SAMPLE: 1198768

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Calcium, Dissolved	ug/L	10000	10100	101	85-115	
Magnesium, Dissolved	ug/L	10000	10100	101	85-115	
Potassium, Dissolved	ug/L	10000	10000	100	85-115	
Sodium, Dissolved	ug/L	10000	10200	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1198769 1198770

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		60145450013	Spike	Spike	Result	MSD	MS	% Rec	% Rec	Limits	RPD	RPD	Qual
Calcium, Dissolved	ug/L	175000	10000	10000	185000	184000	100	92	70-130	0	20		
Magnesium, Dissolved	ug/L	15400	10000	10000	24900	24700	95	93	70-130	1	20		
Potassium, Dissolved	ug/L	6370	10000	10000	16300	16300	99	100	70-130	0	20		
Sodium, Dissolved	ug/L	12000	10000	10000	22200	22100	102	102	70-130	0	20		

MATRIX SPIKE SAMPLE: 1198771

Parameter	Units	60145450014	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	
Calcium, Dissolved	ug/L	236000	10000	249000	135	70-130	M1
Magnesium, Dissolved	ug/L	22300	10000	32200	99	70-130	
Potassium, Dissolved	ug/L	3300	10000	13500	102	70-130	
Sodium, Dissolved	ug/L	9950	10000	20600	107	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/39723	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		

METHOD BLANK: 1450425

Matrix: Water

Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		
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Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	4.0	06/13/13 18:50	
Antimony	ug/L	ND	0.50	06/13/13 18:50	
Arsenic	ug/L	ND	0.50	06/13/13 18:50	
Barium	ug/L	ND	0.30	06/13/13 18:50	
Beryllium	ug/L	ND	0.20	06/13/13 18:50	
Cadmium	ug/L	ND	0.080	06/13/13 18:50	
Calcium	ug/L	ND	20.0	06/13/13 18:50	
Chromium	ug/L	ND	0.50	06/13/13 18:50	
Cobalt	ug/L	ND	0.50	06/13/13 18:50	
Copper	ug/L	ND	0.50	06/13/13 18:50	
Iron	ug/L	ND	50.0	06/13/13 18:50	
Lead	ug/L	ND	0.10	06/13/13 18:50	
Magnesium	ug/L	ND	5.0	06/13/13 18:50	
Manganese	ug/L	ND	0.50	06/13/13 18:50	
Molybdenum	ug/L	ND	0.50	06/13/13 18:50	
Nickel	ug/L	ND	0.50	06/13/13 18:50	
Potassium	ug/L	ND	20.0	06/13/13 18:50	
Selenium	ug/L	ND	0.50	06/13/13 18:50	
Silver	ug/L	ND	0.50	06/13/13 18:50	
Sodium	ug/L	ND	50.0	06/13/13 18:50	
Thallium	ug/L	ND	0.10	06/13/13 18:50	
Vanadium	ug/L	ND	0.10	06/13/13 18:50	
Zinc	ug/L	ND	5.0	06/13/13 18:50	

LABORATORY CONTROL SAMPLE: 1450426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	80	85.6	107	85-115	
Antimony	ug/L	80	79.5	99	85-115	
Arsenic	ug/L	80	80.6	101	85-115	
Barium	ug/L	80	80.0	100	85-115	
Beryllium	ug/L	80	80.7	101	85-115	
Cadmium	ug/L	80	79.7	100	85-115	
Calcium	ug/L	1000	998	100	85-115	
Chromium	ug/L	80	79.1	99	85-115	
Cobalt	ug/L	80	79.4	99	85-115	
Copper	ug/L	80	82.0	103	85-115	
Iron	ug/L	1000	990	99	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

LABORATORY CONTROL SAMPLE: 1450426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	ug/L	80	78.8	99	85-115	
Magnesium	ug/L	1000	1010	101	85-115	
Manganese	ug/L	80	79.0	99	85-115	
Molybdenum	ug/L	80	79.0	99	85-115	
Nickel	ug/L	80	81.2	101	85-115	
Potassium	ug/L	1000	998	100	85-115	
Selenium	ug/L	80	80.6	101	85-115	
Silver	ug/L	80	78.1	98	85-115	
Sodium	ug/L	1000	965	97	85-115	
Thallium	ug/L	80	80.7	101	85-115	
Vanadium	ug/L	80	79.6	99	85-115	
Zinc	ug/L	80	81.6	102	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1450427 1450428

Parameter	Units	MS Spike		MSD Spike		MS Result	MS % Rec	MSD Result	MSD % Rec	% Rec Limits	RPD	Max RPD	Max Qual
		60145450003	Conc.	Conc.	Result								
Aluminum	ug/L	2110	80	80	3440	3430	1660	1650	70-130	.1	20	M1	
Antimony	ug/L	ND	80	80	78.4	77.8	98	97	70-130	.8	20		
Arsenic	ug/L	3.6	80	80	89.0	86.9	107	104	70-130	2	20		
Barium	ug/L	67.3	80	80	156	153	111	108	70-130	2	20		
Beryllium	ug/L	0.22	80	80	82.7	79.8	103	100	70-130	4	20		
Cadmium	ug/L	1.7	80	80	82.3	80.6	101	99	70-130	2	20		
Calcium	ug/L	268000	1000	1000	267000	261000	-115	-680	70-130	2	20	E,M1	
Chromium	ug/L	2.7	80	80	83.8	80.8	101	98	70-130	4	20		
Cobalt	ug/L	1.9	80	80	82.6	81.6	101	100	70-130	1	20		
Copper	ug/L	22.1	80	80	104	102	102	100	70-130	2	20		
Iron	ug/L	5460	1000	1000	6840	6750	138	129	70-130	1	20	M1	
Lead	ug/L	25.1	80	80	103	100	97	94	70-130	2	20		
Magnesium	ug/L	25300	1000	1000	26400	25900	103	58	70-130	2	20	M1	
Manganese	ug/L	1430	80	80	1530	1490	124	78	70-130	2	20		
Molybdenum	ug/L	9.1	80	80	89.2	90.0	100	101	70-130	.9	20		
Nickel	ug/L	1.0	80	80	82.4	82.8	102	102	70-130	.6	20		
Potassium	ug/L	6450	1000	1000	7870	7780	142	134	70-130	1	20	M1	
Selenium	ug/L	ND	80	80	82.7	83.6	103	104	70-130	1	20		
Silver	ug/L	ND	80	80	70.4	72.8	88	91	70-130	3	20		
Sodium	ug/L	11900	1000	1000	12900	12700	101	74	70-130	2	20		
Thallium	ug/L	0.14	80	80	78.2	76.4	98	95	70-130	2	20		
Vanadium	ug/L	5.3	80	80	89.4	86.1	105	101	70-130	4	20		
Zinc	ug/L	100	80	80	186	183	108	104	70-130	2	20		

MATRIX SPIKE SAMPLE: 1450429

Parameter	Units	60145450015	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	12000	80	15400	4280	70-130	M1

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

MATRIX SPIKE SAMPLE:	1450429	60145450015		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Parameter	Units	Result						
Antimony	ug/L	0.62	80	69.0	86	70-130		
Arsenic	ug/L	20.7	80	102	102	70-130		
Barium	ug/L	223	80	319	120	70-130		
Beryllium	ug/L	0.57	80	80.2	100	70-130		
Cadmium	ug/L	1.7	80	81.8	100	70-130		
Calcium	ug/L	148000	1000	146000	-144	70-130	E,M1	
Chromium	ug/L	15.8	80	97.8	103	70-130		
Cobalt	ug/L	8.1	80	88.4	100	70-130		
Copper	ug/L	80.4	80	166	107	70-130		
Iron	ug/L	20800	1000	22400	157	70-130	M1	
Lead	ug/L	179	80	260	101	70-130		
Magnesium	ug/L	22200	1000	24100	184	70-130	M1	
Manganese	ug/L	1380	80	1430	69	70-130	M1	
Molybdenum	ug/L	3.2	80	82.3	99	70-130		
Nickel	ug/L	12.0	80	94.8	103	70-130		
Potassium	ug/L	4570	1000	6410	184	70-130	M1	
Selenium	ug/L	11.3	80	90.3	99	70-130		
Silver	ug/L	0.92	80	72.2	89	70-130		
Sodium	ug/L	3190	1000	4210	102	70-130		
Thallium	ug/L	0.25	80	77.2	96	70-130		
Vanadium	ug/L	25.6	80	111	107	70-130		
Zinc	ug/L	425	80	528	129	70-130		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/39724	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1450432 Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	4.0	06/18/13 07:42	
Antimony	ug/L	ND	0.50	06/18/13 07:42	
Arsenic	ug/L	ND	0.50	06/18/13 07:42	
Barium	ug/L	ND	0.30	06/18/13 07:42	
Beryllium	ug/L	ND	0.20	06/18/13 07:42	
Cadmium	ug/L	ND	0.080	06/18/13 07:42	
Calcium	ug/L	ND	20.0	06/18/13 07:42	
Chromium	ug/L	ND	0.50	06/18/13 07:42	
Cobalt	ug/L	ND	0.50	06/18/13 07:42	
Copper	ug/L	ND	0.50	06/18/13 07:42	
Iron	ug/L	ND	50.0	06/18/13 07:42	
Lead	ug/L	ND	0.10	06/18/13 07:42	
Magnesium	ug/L	5.2	5.0	06/18/13 07:42	P8
Manganese	ug/L	ND	0.50	06/18/13 07:42	
Molybdenum	ug/L	ND	0.50	06/18/13 07:42	
Nickel	ug/L	ND	0.50	06/18/13 07:42	
Potassium	ug/L	ND	20.0	06/18/13 07:42	
Selenium	ug/L	ND	0.50	06/18/13 07:42	
Silver	ug/L	ND	0.50	06/18/13 07:42	
Sodium	ug/L	ND	50.0	06/18/13 07:42	
Thallium	ug/L	ND	0.10	06/18/13 07:42	
Vanadium	ug/L	ND	0.10	06/18/13 07:42	
Zinc	ug/L	ND	5.0	06/18/13 07:42	

LABORATORY CONTROL SAMPLE: 1450433

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	80	74.6	93	85-115	
Antimony	ug/L	80	76.4	96	85-115	
Arsenic	ug/L	80	73.4	92	85-115	
Barium	ug/L	80	75.4	94	85-115	
Beryllium	ug/L	80	78.1	98	85-115	
Cadmium	ug/L	80	76.6	96	85-115	
Calcium	ug/L	1000	926	93	85-115	
Chromium	ug/L	80	76.1	95	85-115	
Cobalt	ug/L	80	75.8	95	85-115	
Copper	ug/L	80	75.1	94	85-115	
Iron	ug/L	1000	954	95	85-115	
Lead	ug/L	80	76.7	96	85-115	
Magnesium	ug/L	1000	960	96	85-115	
Manganese	ug/L	80	76.1	95	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

LABORATORY CONTROL SAMPLE: 1450433

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	80	74.4	93	85-115	
Nickel	ug/L	80	76.6	96	85-115	
Potassium	ug/L	1000	930	93	85-115	
Selenium	ug/L	80	75.3	94	85-115	
Silver	ug/L	80	80.5	101	85-115	
Sodium	ug/L	1000	876	88	85-115	
Thallium	ug/L	80	77.6	97	85-115	
Vanadium	ug/L	80	75.0	94	85-115	
Zinc	ug/L	80	76.9	96	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1450434 1450435

Parameter	Units	MS Spike		MSD Spike		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		60145450022	Result	Conc.	Conc.								
Aluminum	ug/L	408	80	80	856	859	560	564	70-130	.3	20	M1	
Antimony	ug/L	ND	80	80	76.5	75.1	96	94	70-130	2	20		
Arsenic	ug/L	ND	80	80	74.3	74.3	92	92	70-130	.05	20		
Barium	ug/L	37.7	80	80	116	115	98	96	70-130	1	20		
Beryllium	ug/L	ND	80	80	79.0	79.0	99	99	70-130	.05	20		
Cadmium	ug/L	ND	80	80	77.4	75.8	97	95	70-130	2	20		
Calcium	ug/L	15900	1000	1000	17100	17100	127	124	70-130	.2	20		
Chromium	ug/L	0.91	80	80	76.9	76.5	95	94	70-130	.5	20		
Cobalt	ug/L	ND	80	80	75.4	75.0	94	94	70-130	.5	20		
Copper	ug/L	2.0	80	80	75.4	75.2	92	92	70-130	.3	20		
Iron	ug/L	419	1000	1000	1470	1460	105	104	70-130	.4	20		
Lead	ug/L	0.56	80	80	77.7	76.8	96	95	70-130	1	20		
Magnesium	ug/L	2710	1000	1000	3760	3700	105	100	70-130	1	20		
Manganese	ug/L	20.7	80	80	98.1	97.5	97	96	70-130	.7	20		
Molybdenum	ug/L	0.51	80	80	74.9	73.9	93	92	70-130	1	20		
Nickel	ug/L	0.83	80	80	76.7	76.5	95	95	70-130	.2	20		
Potassium	ug/L	535	1000	1000	1580	1560	104	103	70-130	.9	20		
Selenium	ug/L	ND	80	80	76.0	74.8	95	93	70-130	2	20		
Silver	ug/L	ND	80	80	80.1	79.4	100	99	70-130	.9	20		
Sodium	ug/L	1020	1000	1000	1960	1920	94	90	70-130	2	20		
Thallium	ug/L	ND	80	80	78.1	77.3	98	97	70-130	1	20		
Vanadium	ug/L	0.95	80	80	78.0	77.1	96	95	70-130	1	20		
Zinc	ug/L	5.4	80	80	82.9	82.4	97	96	70-130	.6	20		

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/39721	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		

METHOD BLANK: 1450416 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	4.0	06/17/13 14:23	
Antimony, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Arsenic, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Barium, Dissolved	ug/L	ND	0.30	06/17/13 14:23	
Beryllium, Dissolved	ug/L	ND	0.20	06/17/13 14:23	
Cadmium, Dissolved	ug/L	ND	0.080	06/17/13 14:23	
Calcium, Dissolved	ug/L	ND	20.0	06/17/13 14:23	
Chromium, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Cobalt, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Copper, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Iron, Dissolved	ug/L	ND	50.0	06/17/13 14:23	
Lead, Dissolved	ug/L	ND	0.10	06/17/13 14:23	
Magnesium, Dissolved	ug/L	ND	5.0	06/17/13 14:23	
Manganese, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Molybdenum, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Nickel, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Potassium, Dissolved	ug/L	ND	20.0	06/17/13 14:23	
Selenium, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Silver, Dissolved	ug/L	ND	0.50	06/17/13 14:23	
Sodium, Dissolved	ug/L	ND	50.0	06/17/13 14:23	
Thallium, Dissolved	ug/L	ND	0.10	06/17/13 14:23	
Vanadium, Dissolved	ug/L	ND	0.10	06/17/13 14:23	
Zinc, Dissolved	ug/L	ND	5.0	06/17/13 14:23	

LABORATORY CONTROL SAMPLE: 1450417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	80	81.6	102	85-115	
Antimony, Dissolved	ug/L	80	75.5	94	85-115	
Arsenic, Dissolved	ug/L	80	76.1	95	85-115	
Barium, Dissolved	ug/L	80	75.8	95	85-115	
Beryllium, Dissolved	ug/L	80	78.2	98	85-115	
Cadmium, Dissolved	ug/L	80	75.9	95	85-115	
Calcium, Dissolved	ug/L	1000	981	98	85-115	
Chromium, Dissolved	ug/L	80	76.5	96	85-115	
Cobalt, Dissolved	ug/L	80	76.0	95	85-115	
Copper, Dissolved	ug/L	80	77.6	97	85-115	
Iron, Dissolved	ug/L	1000	944	94	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

LABORATORY CONTROL SAMPLE: 1450417

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead, Dissolved	ug/L	80	77.2	97	85-115	
Magnesium, Dissolved	ug/L	1000	955	96	85-115	
Manganese, Dissolved	ug/L	80	76.5	96	85-115	
Molybdenum, Dissolved	ug/L	80	74.6	93	85-115	
Nickel, Dissolved	ug/L	80	76.6	96	85-115	
Potassium, Dissolved	ug/L	1000	955	95	85-115	
Selenium, Dissolved	ug/L	80	78.1	98	85-115	
Silver, Dissolved	ug/L	80	77.7	97	85-115	
Sodium, Dissolved	ug/L	1000	938	94	85-115	
Thallium, Dissolved	ug/L	80	77.0	96	85-115	
Vanadium, Dissolved	ug/L	80	76.7	96	85-115	
Zinc, Dissolved	ug/L	80	77.6	97	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1450418 1450419

Parameter	Units	MS Spike		MSD Spike		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
		60145450003	Result	Conc.	Conc.								
Aluminum, Dissolved	ug/L	9.7	80	80	89.0	87.4	99	97	70-130	.2	.20		
Antimony, Dissolved	ug/L	ND	80	80	75.7	75.8	95	95	70-130	.2	.20		
Arsenic, Dissolved	ug/L	0.84	80	80	80.6	80.2	100	99	70-130	.4	.20		
Barium, Dissolved	ug/L	19.6	80	80	94.4	94.2	94	93	70-130	.2	.20		
Beryllium, Dissolved	ug/L	ND	80	80	75.8	75.8	95	95	70-130	0	.20		
Cadmium, Dissolved	ug/L	0.089	80	80	76.3	76.2	95	95	70-130	.07	.20		
Calcium, Dissolved	ug/L	251000	1000	1000	237000	238000	-1380	-1250	70-130	.6	.20	E,M1	
Chromium, Dissolved	ug/L	ND	80	80	76.8	76.6	96	95	70-130	.4	.20		
Cobalt, Dissolved	ug/L	0.95	80	80	77.8	77.4	96	96	70-130	.6	.20		
Copper, Dissolved	ug/L	0.57	80	80	76.5	75.8	95	94	70-130	1	.20		
Iron, Dissolved	ug/L	1210	1000	1000	2190	2190	98	98	70-130	0	.20		
Lead, Dissolved	ug/L	ND	80	80	73.6	74.2	92	93	70-130	.8	.20		
Magnesium, Dissolved	ug/L	22400	1000	1000	24500	24600	211	222	70-130	.4	.20	M1	
Manganese, Dissolved	ug/L	1340	80	80	1410	1420	96	105	70-130	.5	.20		
Molybdenum, Dissolved	ug/L	8.1	80	80	84.8	85.3	96	96	70-130	.5	.20		
Nickel, Dissolved	ug/L	0.54	80	80	78.0	77.2	97	96	70-130	1	.20		
Potassium, Dissolved	ug/L	5640	1000	1000	6640	6620	100	98	70-130	.3	.20		
Selenium, Dissolved	ug/L	ND	80	80	80.2	78.6	100	98	70-130	2	.20		
Silver, Dissolved	ug/L	ND	80	80	74.2	74.0	93	93	70-130	.1	.20		
Sodium, Dissolved	ug/L	11700	1000	1000	12600	12700	90	98	70-130	.6	.20		
Thallium, Dissolved	ug/L	ND	80	80	74.1	74.4	93	93	70-130	.4	.20		
Vanadium, Dissolved	ug/L	ND	80	80	76.8	77.2	96	96	70-130	.5	.20		
Zinc, Dissolved	ug/L	34.8	80	80	114	112	99	96	70-130	2	.20		

MATRIX SPIKE SAMPLE: 1450420

Parameter	Units	60145450011	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	6.3	80	83.7	97	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

MATRIX SPIKE SAMPLE: 1450420

Parameter	Units	60145450011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	ug/L	ND	80	78.8	98	70-130	
Arsenic, Dissolved	ug/L	ND	80	81.9	102	70-130	
Barium, Dissolved	ug/L	12.8	80	91.2	98	70-130	
Beryllium, Dissolved	ug/L	ND	80	78.0	97	70-130	
Cadmium, Dissolved	ug/L	0.88	80	78.4	97	70-130	
Calcium, Dissolved	ug/L	274000	1000	250000	-2360	70-130	E,M1
Chromium, Dissolved	ug/L	0.77	80	78.2	97	70-130	
Cobalt, Dissolved	ug/L	ND	80	78.2	98	70-130	
Copper, Dissolved	ug/L	1.7	80	78.4	96	70-130	
Iron, Dissolved	ug/L	ND	1000	956	95	70-130	
Lead, Dissolved	ug/L	ND	80	76.2	95	70-130	
Magnesium, Dissolved	ug/L	24400	1000	24100	-34	70-130	M1
Manganese, Dissolved	ug/L	2.0	80	78.6	96	70-130	
Molybdenum, Dissolved	ug/L	6.8	80	86.2	99	70-130	
Nickel, Dissolved	ug/L	3.4	80	82.2	99	70-130	
Potassium, Dissolved	ug/L	1780	1000	2720	94	70-130	
Selenium, Dissolved	ug/L	1.2	80	82.6	102	70-130	
Silver, Dissolved	ug/L	ND	80	75.6	94	70-130	
Sodium, Dissolved	ug/L	11300	1000	12000	68	70-130	M1
Thallium, Dissolved	ug/L	ND	80	76.4	95	70-130	
Vanadium, Dissolved	ug/L	ND	80	78.6	98	70-130	
Zinc, Dissolved	ug/L	21.7	80	100	98	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/39722	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET Dissolved
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1450421                          Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum, Dissolved	ug/L	ND	4.0	06/14/13 16:52	
Antimony, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Arsenic, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Barium, Dissolved	ug/L	ND	0.30	06/14/13 16:52	
Beryllium, Dissolved	ug/L	ND	0.20	06/14/13 16:52	
Cadmium, Dissolved	ug/L	ND	0.080	06/14/13 16:52	
Calcium, Dissolved	ug/L	ND	20.0	06/14/13 16:52	
Chromium, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Cobalt, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Copper, Dissolved	ug/L	ND	0.50	06/17/13 11:33	
Iron, Dissolved	ug/L	ND	50.0	06/14/13 16:52	
Lead, Dissolved	ug/L	ND	0.10	06/14/13 16:52	
Magnesium, Dissolved	ug/L	ND	5.0	06/14/13 16:52	
Manganese, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Molybdenum, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Nickel, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Potassium, Dissolved	ug/L	ND	20.0	06/14/13 16:52	
Selenium, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Silver, Dissolved	ug/L	ND	0.50	06/14/13 16:52	
Sodium, Dissolved	ug/L	ND	50.0	06/14/13 16:52	
Thallium, Dissolved	ug/L	ND	0.10	06/14/13 16:52	
Vanadium, Dissolved	ug/L	ND	0.10	06/14/13 16:52	
Zinc, Dissolved	ug/L	ND	5.0	06/14/13 16:52	

LABORATORY CONTROL SAMPLE: 1450422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum, Dissolved	ug/L	80	78.2	98	85-115	
Antimony, Dissolved	ug/L	80	77.1	96	85-115	
Arsenic, Dissolved	ug/L	80	78.8	98	85-115	
Barium, Dissolved	ug/L	80	77.8	97	85-115	
Beryllium, Dissolved	ug/L	80	79.2	99	85-115	
Cadmium, Dissolved	ug/L	80	78.3	98	85-115	
Calcium, Dissolved	ug/L	1000	991	99	85-115	
Chromium, Dissolved	ug/L	80	79.2	99	85-115	
Cobalt, Dissolved	ug/L	80	79.4	99	85-115	
Copper, Dissolved	ug/L	80	80.1	100	85-115	
Iron, Dissolved	ug/L	1000	962	96	85-115	
Lead, Dissolved	ug/L	80	77.5	97	85-115	
Magnesium, Dissolved	ug/L	1000	1000	100	85-115	
Manganese, Dissolved	ug/L	80	78.3	98	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

**LABORATORY CONTROL SAMPLE:** 1450422

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum, Dissolved	ug/L	80	79.3	99	85-115	
Nickel, Dissolved	ug/L	80	81.6	102	85-115	
Potassium, Dissolved	ug/L	1000	963	96	85-115	
Selenium, Dissolved	ug/L	80	79.6	99	85-115	
Silver, Dissolved	ug/L	80	80.0	100	85-115	
Sodium, Dissolved	ug/L	1000	947	95	85-115	
Thallium, Dissolved	ug/L	80	78.5	98	85-115	
Vanadium, Dissolved	ug/L	80	77.9	97	85-115	
Zinc, Dissolved	ug/L	80	79.9	100	85-115	

**MATRIX SPIKE & MATRIX SPIKE DUPLICATE:** 1450423      1450424

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		60145450022	Spike Conc.	Spike Conc.	Result				RPD	RPD	Qual
Aluminum, Dissolved	ug/L	42.7	80	80	127	131	105	111	70-130	.4	20
Antimony, Dissolved	ug/L	ND	80	80	77.0	77.7	96	97	70-130	.8	20
Arsenic, Dissolved	ug/L	ND	80	80	80.2	79.6	100	99	70-130	.6	20
Barium, Dissolved	ug/L	33.7	80	80	111	112	97	97	70-130	.4	20
Beryllium, Dissolved	ug/L	ND	80	80	79.6	80.6	100	101	70-130	1	20
Cadmium, Dissolved	ug/L	ND	80	80	79.4	79.4	99	99	70-130	0	20
Calcium, Dissolved	ug/L	17700	1000	1000	18700	18900	97	114	70-130	.9	20
Chromium, Dissolved	ug/L	ND	80	80	80.6	80.8	100	101	70-130	.2	20
Cobalt, Dissolved	ug/L	ND	80	80	79.2	81.3	99	101	70-130	3	20
Copper, Dissolved	ug/L	2.1	80	80	80.6	81.2	98	99	70-130	.7	20
Iron, Dissolved	ug/L	ND	1000	1000	1010	1020	97	97	70-130	.5	20
Lead, Dissolved	ug/L	ND	80	80	78.0	78.0	97	97	70-130	.06	20
Magnesium, Dissolved	ug/L	2580	1000	1000	3620	3650	103	107	70-130	.9	20
Manganese, Dissolved	ug/L	10.4	80	80	89.6	90.2	99	100	70-130	.6	20
Molybdenum, Dissolved	ug/L	ND	80	80	78.8	80.5	98	100	70-130	2	20
Nickel, Dissolved	ug/L	3.4	80	80	83.1	87.4	100	105	70-130	5	20
Potassium, Dissolved	ug/L	452	1000	1000	1430	1420	98	97	70-130	.7	20
Selenium, Dissolved	ug/L	ND	80	80	79.7	80.9	99	101	70-130	1	20
Silver, Dissolved	ug/L	ND	80	80	73.8	76.2	92	95	70-130	3	20
Sodium, Dissolved	ug/L	1110	1000	1000	2090	2100	98	99	70-130	.3	20
Thallium, Dissolved	ug/L	ND	80	80	78.1	78.2	98	98	70-130	.06	20
Vanadium, Dissolved	ug/L	0.16	80	80	80.0	79.0	100	98	70-130	1	20
Zinc, Dissolved	ug/L	6.7	80	80	86.6	91.6	100	106	70-130	6	20

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/22907	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012		

METHOD BLANK: 1198772      Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Aluminum, Dissolved	ug/L	ND	50.0	06/05/13 09:29	
Antimony, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Arsenic, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Barium, Dissolved	ug/L	0.50J	1.0	06/05/13 09:29	
Beryllium, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Cadmium, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Chromium, Dissolved	ug/L	0.76J	1.0	06/05/13 09:29	
Cobalt, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Copper, Dissolved	ug/L	1.1	1.0	06/05/13 09:29	
Iron, Dissolved	ug/L	11.1J	50.0	06/05/13 09:29	
Lead, Dissolved	ug/L	0.11J	1.0	06/05/13 09:29	
Manganese, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Molybdenum, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Nickel, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Selenium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Silver, Dissolved	ug/L	ND	0.50	06/05/13 09:29	
Thallium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Vanadium, Dissolved	ug/L	ND	1.0	06/05/13 09:29	
Zinc, Dissolved	ug/L	37.8	10.0	06/05/13 09:29	

LABORATORY CONTROL SAMPLE: 1198773

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	1000	1030	103	85-115	
Antimony, Dissolved	ug/L	40	42.7	107	85-115	
Arsenic, Dissolved	ug/L	40	40.4	101	85-115	
Barium, Dissolved	ug/L	40	42.4	106	85-115	
Beryllium, Dissolved	ug/L	40	43.1	108	85-115	
Cadmium, Dissolved	ug/L	40	41.5	104	85-115	
Chromium, Dissolved	ug/L	40	40.3	101	85-115	
Cobalt, Dissolved	ug/L	40	39.8	99	85-115	
Copper, Dissolved	ug/L	40	40.1	100	85-115	
Iron, Dissolved	ug/L	1000	1010	101	85-115	
Lead, Dissolved	ug/L	40	40.9	102	85-115	
Manganese, Dissolved	ug/L	40	40.7	102	85-115	
Molybdenum, Dissolved	ug/L	40	40.9	102	85-115	
Nickel, Dissolved	ug/L	40	39.8	100	85-115	
Selenium, Dissolved	ug/L	40	40.6	102	85-115	
Silver, Dissolved	ug/L	20	20.1	100	85-115	
Thallium, Dissolved	ug/L	40	39.2	98	85-115	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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LABORATORY CONTROL SAMPLE: 1198773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vanadium, Dissolved	ug/L	40	40.7	102	85-115	
Zinc, Dissolved	ug/L	100	105	105	85-115	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1198774      1198775

Parameter	Units	60145328003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
			Conc.	Conc.	Result	Result	% Rec	% Rec	RPD	RPD	RPD	Qual
Aluminum, Dissolved	ug/L	7240	1000	1000	8270	8150	103	90	70-130	1	20	
Antimony, Dissolved	ug/L	1.9	40	40	45.7	45.7	110	110	70-130	0	20	
Arsenic, Dissolved	ug/L	191	40	40	238	235	118	112	70-130	1	20	
Barium, Dissolved	ug/L	14.1	40	40	57.5	57.9	109	109	70-130	1	20	
Beryllium, Dissolved	ug/L	1.1	40	40	36.4	35.7	88	87	70-130	2	20	
Cadmium, Dissolved	ug/L	90.3	40	40	133	132	107	104	70-130	1	20	
Chromium, Dissolved	ug/L	10	40	40	48.5	49.0	96	97	70-130	1	20	
Cobalt, Dissolved	ug/L	25.4	40	40	64.3	64.4	97	97	70-130	0	20	
Copper, Dissolved	ug/L	930	40	40	980	985	125	139	70-130	1	20	M1
Iron, Dissolved	ug/L	40200	1000	1000	42000	41900	180	172	70-130	0	20	M1
Lead, Dissolved	ug/L	4800	40	40	4880	4860	200	162	70-130	0	20	M1
Manganese, Dissolved	ug/L	8580	40	40	8230	8430	-865	-368	70-130	2	20	M1
Molybdenum, Dissolved	ug/L	8.2	40	40	51.0	51.6	107	109	70-130	1	20	
Nickel, Dissolved	ug/L	36.8	40	40	75.4	74.9	96	95	70-130	1	20	
Selenium, Dissolved	ug/L	1.3	40	40	45.8	45.5	111	110	70-130	1	20	
Silver, Dissolved	ug/L	0.54	20	20	19.7	19.8	96	97	70-130	1	20	
Thallium, Dissolved	ug/L	0.92J	40	40	39.1	39.4	95	96	70-130	1	20	
Vanadium, Dissolved	ug/L	12.8	40	40	53.7	54.2	102	103	70-130	1	20	
Zinc, Dissolved	ug/L	29700	100	100	28200	29000	-1560	-690	70-130	3	20	M1

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MATRIX SPIKE SAMPLE: 1198776

Parameter	Units	60145328004 Result	Spikes Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
			Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	14400	1000	15300	84	70-130	
Antimony, Dissolved	ug/L	1.6	40	45.1	109	70-130	
Arsenic, Dissolved	ug/L	228	40	272	111	70-130	
Barium, Dissolved	ug/L	22.6	40	66.0	108	70-130	
Beryllium, Dissolved	ug/L	3.0	40	36.5	84	70-130	
Cadmium, Dissolved	ug/L	67.3	40	108	103	70-130	
Chromium, Dissolved	ug/L	21.6	40	61.7	100	70-130	
Cobalt, Dissolved	ug/L	23.3	40	61.4	95	70-130	
Copper, Dissolved	ug/L	689	40	734	114	70-130	
Iron, Dissolved	ug/L	95000	1000	96600	150	70-130 M1	
Lead, Dissolved	ug/L	6560	40	6650	210	70-130 M1	
Manganese, Dissolved	ug/L	11100	40	11300	525	70-130 M1	
Molybdenum, Dissolved	ug/L	3.3	40	46.4	108	70-130	
Nickel, Dissolved	ug/L	32.3	40	70.8	96	70-130	
Selenium, Dissolved	ug/L	2.1	40	45.1	108	70-130	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

MATRIX SPIKE SAMPLE: 1198776

Parameter	Units	60145328004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Silver, Dissolved	ug/L	0.16J	20	19.3	96	70-130	
Thallium, Dissolved	ug/L	1.2	40	39.5	96	70-130	
Vanadium, Dissolved	ug/L	36.4	40	77.4	102	70-130	
Zinc, Dissolved	ug/L	19400	100	19500	50	70-130 M1	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/22908	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1198777 Matrix: Water

Associated Lab Samples: 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019,  
60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Aluminum, Dissolved	ug/L	ND	50.0	06/06/13 17:07	
Antimony, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Arsenic, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Barium, Dissolved	ug/L	0.16J	1.0	06/06/13 17:07	
Beryllium, Dissolved	ug/L	ND	0.50	06/05/13 13:00	
Cadmium, Dissolved	ug/L	ND	0.50	06/05/13 13:00	
Chromium, Dissolved	ug/L	0.52J	1.0	06/05/13 13:00	
Cobalt, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Copper, Dissolved	ug/L	0.56J	1.0	06/05/13 13:00	
Iron, Dissolved	ug/L	7.5J	50.0	06/05/13 13:00	
Lead, Dissolved	ug/L	0.097J	1.0	06/05/13 13:00	
Manganese, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Molybdenum, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Nickel, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Selenium, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Silver, Dissolved	ug/L	ND	0.50	06/05/13 13:00	
Thallium, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Vanadium, Dissolved	ug/L	ND	1.0	06/05/13 13:00	
Zinc, Dissolved	ug/L	8.5J	10.0	06/05/13 13:00	

LABORATORY CONTROL SAMPLE: 1198778

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Aluminum, Dissolved	ug/L	1000	985	98	85-115	
Antimony, Dissolved	ug/L	40	43.2	108	85-115	
Arsenic, Dissolved	ug/L	40	41.3	103	85-115	
Barium, Dissolved	ug/L	40	39.8	100	85-115	
Beryllium, Dissolved	ug/L	40	40.6	101	85-115	
Cadmium, Dissolved	ug/L	40	42.2	105	85-115	
Chromium, Dissolved	ug/L	40	40.0	100	85-115	
Cobalt, Dissolved	ug/L	40	39.8	100	85-115	
Copper, Dissolved	ug/L	40	40.8	102	85-115	
Iron, Dissolved	ug/L	1000	1010	101	85-115	
Lead, Dissolved	ug/L	40	40.7	102	85-115	
Manganese, Dissolved	ug/L	40	40.7	102	85-115	
Molybdenum, Dissolved	ug/L	40	41.9	105	85-115	
Nickel, Dissolved	ug/L	40	41.0	103	85-115	
Selenium, Dissolved	ug/L	40	42.8	107	85-115	
Silver, Dissolved	ug/L	20	20.4	102	85-115	
Thallium, Dissolved	ug/L	40	39.5	99	85-115	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

LABORATORY CONTROL SAMPLE: 1198778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vanadium, Dissolved	ug/L	40	41.2	103	85-115	
Zinc, Dissolved	ug/L	100	104	104	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1198779 1198780

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		60145450015	Spike Conc.	MS Result	MSD Result				RPD	RPD	Qual
Aluminum, Dissolved	ug/L	5030	1000	1000	5910	6040	88	100	70-130	2	20
Antimony, Dissolved	ug/L	0.32J	40	40	43.6	44.3	108	110	70-130	2	20
Arsenic, Dissolved	ug/L	9.0	40	40	51.7	52.7	107	109	70-130	2	20
Barium, Dissolved	ug/L	114	40	40	152	155	96	103	70-130	2	20
Beryllium, Dissolved	ug/L	0.41J	40	40	34.1	36.3	84	90	70-130	6	20
Cadmium, Dissolved	ug/L	3.0	40	40	44.2	44.9	103	105	70-130	2	20
Chromium, Dissolved	ug/L	9.9	40	40	49.9	50.8	100	102	70-130	2	20
Cobalt, Dissolved	ug/L	9.1	40	40	47.7	48.7	96	99	70-130	2	20
Copper, Dissolved	ug/L	86.4	40	40	124	126	95	100	70-130	2	20
Iron, Dissolved	ug/L	11900	1000	1000	12800	13000	94	114	70-130	2	20
Lead, Dissolved	ug/L	148	40	40	190	195	103	116	70-130	3	20
Manganese, Dissolved	ug/L	2460	40	40	2480	2550	65	230	70-130	3	20
Molybdenum, Dissolved	ug/L	0.46J	40	40	43.3	44.8	107	111	70-130	3	20
Nickel, Dissolved	ug/L	10.0	40	40	49.6	49.6	99	99	70-130	0	20
Selenium, Dissolved	ug/L	9.4	40	40	51.2	49.7	105	101	70-130	3	20
Silver, Dissolved	ug/L	1.4	20	20	21.2	21.6	99	101	70-130	2	20
Thallium, Dissolved	ug/L	0.11J	40	40	39.5	40.3	99	101	70-130	2	20
Vanadium, Dissolved	ug/L	11.7	40	40	53.2	53.5	104	105	70-130	1	20
Zinc, Dissolved	ug/L	480	100	100	574	584	94	104	70-130	2	20

MATRIX SPIKE SAMPLE: 1198781

Parameter	Units	60145450016		Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
		Result	Conc.					RPD	RPD
Aluminum, Dissolved	ug/L	36.8J	1000		972	93	70-130		
Antimony, Dissolved	ug/L	0.16J	40		44.1	110	70-130		
Arsenic, Dissolved	ug/L	0.19J	40		45.4	113	70-130		
Barium, Dissolved	ug/L	19.4	40		57.7	96	70-130		
Beryllium, Dissolved	ug/L	0.10J	40		36.0	90	70-130		
Cadmium, Dissolved	ug/L	9.6	40		50.8	103	70-130		
Cobalt, Dissolved	ug/L	1.9	40		41.7	100	70-130		
Copper, Dissolved	ug/L	7.6	40		48.2	102	70-130		
Iron, Dissolved	ug/L	595	1000		1600	100	70-130		
Lead, Dissolved	ug/L	0.81J	40		42.2	103	70-130		
Manganese, Dissolved	ug/L	1450	40		1480	70	70-130		
Molybdenum, Dissolved	ug/L	15.6	40		59.2	109	70-130		
Nickel, Dissolved	ug/L	3.4	40		42.8	99	70-130		
Selenium, Dissolved	ug/L	ND	40		43.8	109	70-130		
Silver, Dissolved	ug/L	ND	20		19.6	98	70-130		

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

MATRIX SPIKE SAMPLE: 1198781

Parameter	Units	60145450016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium, Dissolved	ug/L	0.087J	40	40.1	100	70-130	
Vanadium, Dissolved	ug/L	ND	40	42.7	107	70-130	
Zinc, Dissolved	ug/L	1330	100	1420	91	70-130	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MPRP/22961	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 Potentially Dissolved Metals
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1200118 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Chromium, Dissolved	ug/L	0.14J	1.0	06/07/13 15:54	
Copper, Dissolved	ug/L	0.50J	1.0	06/07/13 15:54	
Zinc, Dissolved	ug/L	4.4J	10.0	06/07/13 15:54	

LABORATORY CONTROL SAMPLE: 1200119

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Chromium, Dissolved	ug/L	40	41.4	104	85-115	
Copper, Dissolved	ug/L	40	41.6	104	85-115	
Zinc, Dissolved	ug/L	100	108	108	85-115	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1200120 1200121

Parameter	Units	MS	MSD	MS	MSD	% Rec	% Rec	% Rec	Max	RPD	RPD	Qual
		60145450002	Spike	Spike	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chromium, Dissolved	ug/L	1.6	40	40	41.1	41.3	99	99	70-130	0	20	
Copper, Dissolved	ug/L	73.9	40	40	109	110	88	90	70-130	1	20	
Zinc, Dissolved	ug/L	81700	100	100	77000	77900	-4700	-3820	70-130	1	20	M1

MATRIX SPIKE SAMPLE: 1200122

Parameter	Units	60145450003	Spike	MS	MS	% Rec	% Rec	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	Qualifiers	Qualifiers	Qualifiers
Chromium, Dissolved	ug/L	3.2	40	43.6	101	70-130			
Copper, Dissolved	ug/L	18.9	40	59.0	100	70-130			
Zinc, Dissolved	ug/L	192	100	283	91	70-130			

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MT/12156	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		

METHOD BLANK: 1444499 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	05/30/13 14:08	

LABORATORY CONTROL SAMPLE: 1444500

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	971	97	90-110	

SAMPLE DUPLICATE: 1444501

Parameter	Units	60145450010 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	1370	1430	4	20	

SAMPLE DUPLICATE: 1444502

Parameter	Units	60145450020 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	113	121	7	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	MT/12167	Analysis Method:	SM 2510B
QC Batch Method:	SM 2510B	Analysis Description:	2510B Specific Conductance
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1444978 Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Specific Conductance	umhos/cm	ND	10.0	05/31/13 10:18	

LABORATORY CONTROL SAMPLE: 1444979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Specific Conductance	umhos/cm	1000	1000	100	90-110	

SAMPLE DUPLICATE: 1444980

Parameter	Units	60145450022 Result	Dup Result	RPD	Max RPD	Qualifiers
Specific Conductance	umhos/cm	117	116	.2	20	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41581	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60145450001, 60145450002, 60145450003		

METHOD BLANK: 1196641 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/31/13 09:47	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	05/31/13 09:47	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	05/31/13 09:47	

LABORATORY CONTROL SAMPLE: 1196642

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	504	101	90-110	

SAMPLE DUPLICATE: 1196645

Parameter	Units	60145499004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	714	708	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	714	708	1	10	

SAMPLE DUPLICATE: 1196646

Parameter	Units	60145499011 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	435	425	2	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	435	425	2	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41622	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015		

METHOD BLANK: 1197986 Matrix: Water

Associated Lab Samples: 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010,  
60145450011, 60145450012, 60145450013, 60145450014, 60145450015

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	06/05/13 09:18	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	06/05/13 09:18	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	06/05/13 09:18	

LABORATORY CONTROL SAMPLE: 1197987

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	497	99	90-110	

SAMPLE DUPLICATE: 1197990

Parameter	Units	60145450004	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	368	366	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	368	366	1	10	

SAMPLE DUPLICATE: 1197991

Parameter	Units	60145450011	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	99.4	100	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	99.4	100	1	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41703	Analysis Method:	SM 2320B
QC Batch Method:	SM 2320B	Analysis Description:	2320B Alkalinity
Associated Lab Samples:	60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1200475 Matrix: Water

Associated Lab Samples: 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	06/06/13 17:06	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	ND	20.0	06/06/13 17:06	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	ND	20.0	06/06/13 17:06	

LABORATORY CONTROL SAMPLE: 1200476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	500	478	96	90-110	

SAMPLE DUPLICATE: 1200479

Parameter	Units	60145450016 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	111	112	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	111	112	1	10	

SAMPLE DUPLICATE: 1200480

Parameter	Units	60145450023 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Carbonate (CaCO <sub>3</sub> )	mg/L	ND	ND		10	
Alkalinity, Total as CaCO <sub>3</sub>	mg/L	97.8	98.4	1	10	
Alkalinity,Bicarbonate (CaCO <sub>3</sub> )	mg/L	97.8	98.4	1	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41518	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015

METHOD BLANK: 1195004 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014,  
60145450015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	05/28/13 09:16	

LABORATORY CONTROL SAMPLE: 1195005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	996	100	80-120	

SAMPLE DUPLICATE: 1195006

Parameter	Units	60145406001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1740	1740	0	17	

SAMPLE DUPLICATE: 1195007

Parameter	Units	60145450007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	604	612	1	17	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41548	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1195810 Matrix: Water

Associated Lab Samples: 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	5.0	05/29/13 15:25	

LABORATORY CONTROL SAMPLE: 1195811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	1000	100	80-120	

SAMPLE DUPLICATE: 1195812

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	6100	6100	0	17	

SAMPLE DUPLICATE: 1195813

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1130	1140	0	17	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41520	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006		

METHOD BLANK:	1195063	Matrix:	Water
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Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/28/13 10:44	

SAMPLE DUPLICATE: 1195064

Parameter	Units	60145364001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	25.0	25.0	0	25	

SAMPLE DUPLICATE: 1195065

Parameter	Units	60145388003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	163	159	2	25	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41522	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015		

METHOD BLANK: 1195066 Matrix: Water

Associated Lab Samples: 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013,  
60145450014, 60145450015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/28/13 10:59	

SAMPLE DUPLICATE: 1195067

Parameter	Units	60145450007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	2020	2020	0	25	

SAMPLE DUPLICATE: 1195068

Parameter	Units	60145409001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	272	276	1	25	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41533	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60145450016		

METHOD BLANK: 1195259 Matrix: Water

Associated Lab Samples: 60145450016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/28/13 18:10	

SAMPLE DUPLICATE: 1195260

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	60145529001	223	220	1	25

SAMPLE DUPLICATE: 1195261

Parameter	Units	Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	60145418001	5.0	6.0	18	25

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41534	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1195262 Matrix: Water

Associated Lab Samples: 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/28/13 18:20	

SAMPLE DUPLICATE: 1195263

Parameter	Units	60145450017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	6.0	8.0	29	25	D6

SAMPLE DUPLICATE: 1195264

Parameter	Units	60145592002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	16.0	15.0	6	25	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WET/41497	Analysis Method:	SM 4500-S-2 D
QC Batch Method:	SM 4500-S-2 D	Analysis Description:	4500S2D Sulfide, Total
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015		

METHOD BLANK: 1194646 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
Sulfide, Total	mg/L	ND	0.050	05/26/13 17:18	

LABORATORY CONTROL SAMPLE: 1194647

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Sulfide, Total	mg/L	.5	0.48	96	80-120	

MATRIX SPIKE SAMPLE: 1194648

Parameter	Units	60145450001	Spike	MS	MS	% Rec	Qualifiers
		Result	Conc.	Result	% Rec	Limits	
Sulfide, Total	mg/L	ND	.5	0.53	100	75-125	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch: WET/41574 Analysis Method: SM 4500-S-2 D

QC Batch Method: SM 4500-S-2 D Analysis Description: 4500S2D Sulfide, Total

Associated Lab Samples: 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

METHOD BLANK: 1196420 Matrix: Water

Associated Lab Samples: 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide, Total	mg/L	ND	0.050	05/30/13 14:05	

LABORATORY CONTROL SAMPLE: 1196421

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	.5	0.49	98	80-120	

MATRIX SPIKE SAMPLE: 1196422

Parameter	Units	Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide, Total	mg/L	60145383001	ND	.5	0.41	81	75-125

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/25019	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020		

METHOD BLANK: 1200870 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	06/07/13 10:18	
Sulfate	mg/L	ND	1.0	06/07/13 10:18	

METHOD BLANK: 1201938 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450010, 60145450011, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	06/08/13 18:55	

LABORATORY CONTROL SAMPLE: 1200871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Sulfate	mg/L	5	4.8	96	90-110	

LABORATORY CONTROL SAMPLE: 1201939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1200872 1200873

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			60145450001	5	5	5.9	5.9	99	100	64-118	1	12
Chloride	mg/L	ND	5	5	5.9	5.9	99	100	64-118	1	12	
Sulfate	mg/L	1060	500	500	1490	1480	86	85	61-119	1	10	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

MATRIX SPIKE SAMPLE:		1200874						
Parameter	Units	60145450010	Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		ND	5	5.5	96	64-118	
Sulfate	mg/L		674	500	1120	88	61-119	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/25020	Analysis Method:	EPA 300.0
QC Batch Method:	EPA 300.0	Analysis Description:	300.0 IC Anions
Associated Lab Samples:	60145450021, 60145450022, 60145450023		

METHOD BLANK: 1200875 Matrix: Water

Associated Lab Samples: 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	06/07/13 18:16	
Sulfate	mg/L	ND	1.0	06/07/13 18:16	

METHOD BLANK: 1201940 Matrix: Water

Associated Lab Samples: 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	1.0	06/09/13 01:20	

LABORATORY CONTROL SAMPLE: 1200876

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	
Sulfate	mg/L	5	4.9	97	90-110	

LABORATORY CONTROL SAMPLE: 1201941

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.9	99	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 1200877 1200878

Parameter	Units	60145450021 Result	MS	MSD	MS Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.							
Chloride	mg/L	ND	5	5	5.2	5.1	88	87	64-118	1	12
Sulfate	mg/L	16.4	5	5	21.2	21.0	97	92	61-119	1	10

MATRIX SPIKE SAMPLE: 1200879

Parameter	Units	60145790002 Result	Spike	MS	MS % Rec	% Rec Limits	Qualifiers
			Conc.	Result			
Chloride	mg/L	3.8	5	6.2	48	64-118	M1
Sulfate	mg/L	1630	1000	2630	99	61-119	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/24878	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014		

METHOD BLANK: 1195328 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013, 60145450014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	0.10	05/29/13 10:49	

LABORATORY CONTROL SAMPLE: 1195329

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	2	2.1	104	90-110	

MATRIX SPIKE SAMPLE: 1195330

Parameter	Units	60145328002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	2	2.1	105	90-110	

MATRIX SPIKE SAMPLE: 1195332

Parameter	Units	60145328004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.16	2	1.7	79	90-110 M1	

SAMPLE DUPLICATE: 1195331

Parameter	Units	60145328003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	0.39	0.37	7	13	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/24882	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, preserved

Associated Lab Samples: 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021,  
60145450022, 60145450023

METHOD BLANK: 1195411 Matrix: Water

Associated Lab Samples: 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021,  
60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	0.10	05/29/13 11:16	

LABORATORY CONTROL SAMPLE: 1195412

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	2	2.0	102	90-110	

MATRIX SPIKE SAMPLE: 1195413

Parameter	Units	60145450015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	2	2.1	103	90-110	

SAMPLE DUPLICATE: 1195414

Parameter	Units	60145450016 Result	Dup Result	Max RPD	Qualifiers
Nitrogen, NO <sub>2</sub> plus NO <sub>3</sub>	mg/L	ND	ND	13	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/24872	Analysis Method:	SM 4500-CN-E
QC Batch Method:	SM 4500-CN-E	Analysis Description:	4500CNE Cyanide, Total
Associated Lab Samples:	60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007, 60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013		

METHOD BLANK: 1195029 Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010, 60145450011, 60145450012, 60145450013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	05/28/13 16:24	

LABORATORY CONTROL SAMPLE: 1195030

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	103	69-126	

MATRIX SPIKE SAMPLE: 1195031

Parameter	Units	60145328001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.095	95	41-136	

SAMPLE DUPLICATE: 1195032

Parameter	Units	60145450004 Result	Dup Result	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND	26	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/24890	Analysis Method:	SM 4500-CN-E
QC Batch Method:	SM 4500-CN-E	Analysis Description:	4500CNE Cyanide, Total
Associated Lab Samples:	60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1195493 Matrix: Water

Associated Lab Samples: 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020,  
60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	05/29/13 14:20	

LABORATORY CONTROL SAMPLE: 1195494

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	100	69-126	

MATRIX SPIKE SAMPLE: 1195495

Parameter	Units	60145450019 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.10	104	41-136	

SAMPLE DUPLICATE: 1195496

Parameter	Units	60145450022 Result	Dup Result	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND	26	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch: WETA/25032

Analysis Method: SM 5310C

QC Batch Method: SM 5310C

Analysis Description: 5310C Total Organic Carbon

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010

METHOD BLANK: 1201949

Matrix: Water

Associated Lab Samples: 60145450001, 60145450002, 60145450003, 60145450004, 60145450005, 60145450006, 60145450007,  
60145450008, 60145450009, 60145450010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	06/10/13 09:46	

LABORATORY CONTROL SAMPLE: 1201950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	5.1	102	80-120	

MATRIX SPIKE SAMPLE: 1201951

Parameter	Units	60145450001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.5	5	6.2	93	80-120	

SAMPLE DUPLICATE: 1201952

Parameter	Units	60145450002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	2.6	2.6	2	25	

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## QUALITY CONTROL DATA

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

QC Batch:	WETA/25054	Analysis Method:	SM 5310C
QC Batch Method:	SM 5310C	Analysis Description:	5310C Total Organic Carbon
Associated Lab Samples:	60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017, 60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023		

METHOD BLANK: 1202524 Matrix: Water

Associated Lab Samples: 60145450011, 60145450012, 60145450013, 60145450014, 60145450015, 60145450016, 60145450017,  
60145450018, 60145450019, 60145450020, 60145450021, 60145450022, 60145450023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	06/11/13 09:44	

LABORATORY CONTROL SAMPLE: 1202525

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5	4.8	97	80-120	

MATRIX SPIKE SAMPLE: 1202526

Parameter	Units	Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	5	5.6	100	80-120	

SAMPLE DUPLICATE: 1202527

Parameter	Units	Result	Dup Result	Max RPD	Qualifiers
Total Organic Carbon	mg/L	ND	ND	25	

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## QUALIFIERS

Project: MAY 2013 RICO WATER SAMPLING

Pace Project No.: 60145450

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

P8 Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450001	EB-1_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450002	EB-2_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450003	MW-3 DEEP_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450004	MW-103_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450005	MW-104_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450006	GW-1_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450007	GW-4_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450008	DR-6_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450009	FB-LAB_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450010	DR-10_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450011	MW-2 DEEP_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450012	FB-FIELD_20130522	EPA 200.7	MPRP/22905	EPA 200.7	ICP/18120
60145450013	AT-2_20130522	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450014	CHV-101S_20130522	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450015	GW-3_20130522	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450016	DR-5_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450017	DR-4_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450018	DR-7_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450019	DR-G_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450020	DR-2_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450021	DR-4-SW_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450022	DR-11_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450023	DR-12_20130523	EPA 200.7	MPRP/22906	EPA 200.7	ICP/18121
60145450001	EB-1_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450002	EB-2_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450003	MW-3 DEEP_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450004	MW-103_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450005	MW-104_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450006	GW-1_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450007	GW-4_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450008	DR-6_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450009	FB-LAB_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450010	DR-10_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450011	MW-2 DEEP_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450012	FB-FIELD_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450013	AT-2_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450014	CHV-101S_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450015	GW-3_20130522	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450016	DR-5_20130523	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450017	DR-4_20130523	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450018	DR-7_20130523	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450019	DR-G_20130523	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450020	DR-2_20130523	EPA 200.8	MPRP/39723	EPA 200.8	ICPM/16415
60145450021	DR-4-SW_20130523	EPA 200.8	MPRP/39724	EPA 200.8	ICPM/16433
60145450022	DR-11_20130523	EPA 200.8	MPRP/39724	EPA 200.8	ICPM/16433
60145450023	DR-12_20130523	EPA 200.8	MPRP/39724	EPA 200.8	ICPM/16433
60145450001	EB-1_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450002	EB-2_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450003	MW-3 DEEP_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450004	MW-103_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450005	MW-104_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450006	GW-1_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450007	GW-4_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450008	DR-6_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450009	FB-LAB_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450010	DR-10_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450011	MW-2 DEEP_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450012	FB-FIELD_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450013	AT-2_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450014	CHV-101S_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450015	GW-3_20130522	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450016	DR-5_20130523	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450017	DR-4_20130523	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450018	DR-7_20130523	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450019	DR-G_20130523	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450020	DR-2_20130523	EPA 200.8	MPRP/39721	EPA 200.8	ICPM/16417
60145450021	DR-4-SW_20130523	EPA 200.8	MPRP/39722	EPA 200.8	ICPM/16428
60145450022	DR-11_20130523	EPA 200.8	MPRP/39722	EPA 200.8	ICPM/16428
60145450023	DR-12_20130523	EPA 200.8	MPRP/39722	EPA 200.8	ICPM/16428
60145450001	EB-1_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450001	EB-1_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450002	EB-2_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450002	EB-2_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450003	MW-3 DEEP_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450003	MW-3 DEEP_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450004	MW-103_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450004	MW-103_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450005	MW-104_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450005	MW-104_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450006	GW-1_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450006	GW-1_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450007	GW-4_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450008	DR-6_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450008	DR-6_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450009	FB-LAB_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450009	FB-LAB_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450010	DR-10_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450010	DR-10_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450011	MW-2 DEEP_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450011	MW-2 DEEP_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450012	FB-FIELD_20130522	EPA 200.8	MPRP/22907	EPA 200.8	ICPM/2300
60145450012	FB-FIELD_20130522	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450013	AT-2_20130522	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450014	CHV-101S_20130522	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450015	GW-3_20130522	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450016	DR-5_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450016	DR-5_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450017	DR-4_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450017	DR-4_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450018	DR-7_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450018	DR-7_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450019	DR-G_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450019	DR-G_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450020	DR-2_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450020	DR-2_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450021	DR-4-SW_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450021	DR-4-SW_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450022	DR-11_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450022	DR-11_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450023	DR-12_20130523	EPA 200.8	MPRP/22908	EPA 200.8	ICPM/2301
60145450023	DR-12_20130523	EPA 200.8	MPRP/22961	EPA 200.8	ICPM/2306
60145450001	EB-1_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450002	EB-2_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450003	MW-3 DEEP_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450004	MW-103_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450005	MW-104_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450006	GW-1_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450007	GW-4_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450008	DR-6_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450009	FB-LAB_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450010	DR-10_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450011	MW-2 DEEP_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450012	FB-FIELD_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450013	AT-2_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450014	CHV-101S_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450015	GW-3_20130522	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450016	DR-5_20130523	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450017	DR-4_20130523	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450018	DR-7_20130523	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450019	DR-G_20130523	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450020	DR-2_20130523	EPA 245.1	MERP/8562	EPA 245.1	MERC/9770
60145450021	DR-4-SW_20130523	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145450022	DR-11_20130523	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145450023	DR-12_20130523	EPA 245.1	MERP/8563	EPA 245.1	MERC/9726
60145450001	EB-1_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450002	EB-2_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450003	MW-3 DEEP_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450004	MW-103_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450005	MW-104_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450006	GW-1_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450007	GW-4_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450008	DR-6_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450009	FB-LAB_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450010	DR-10_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450011	MW-2 DEEP_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450012	FB-FIELD_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450013	AT-2_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450014	CHV-101S_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450015	GW-3_20130522	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450016	DR-5_20130523	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450017	DR-4_20130523	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450018	DR-7_20130523	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450019	DR-G_20130523	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450020	DR-2_20130523	EPA 245.1	MERP/8550	EPA 245.1	MERC/9769
60145450021	DR-4-SW_20130523	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145450022	DR-11_20130523	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145450023	DR-12_20130523	EPA 245.1	MERP/8551	EPA 245.1	MERC/9723
60145450001	EB-1_20130522	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145450002	EB-2_20130522	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145450003	MW-3 DEEP_20130522	EPA 245.1	MERP/7397	EPA 245.1	MERC/7353
60145450004	MW-103_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450005	MW-104_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450006	GW-1_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450007	GW-4_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450008	DR-6_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450009	FB-LAB_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450010	DR-10_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450011	MW-2 DEEP_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450012	FB-FIELD_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450013	AT-2_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450014	CHV-101S_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450015	GW-3_20130522	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450016	DR-5_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450017	DR-4_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450018	DR-7_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450019	DR-G_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450020	DR-2_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450021	DR-4-SW_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450022	DR-11_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450023	DR-12_20130523	EPA 245.1	MERP/7402	EPA 245.1	MERC/7359
60145450001	EB-1_20130522	SM 2510B	MT/12156		
60145450002	EB-2_20130522	SM 2510B	MT/12156		
60145450003	MW-3 DEEP_20130522	SM 2510B	MT/12156		
60145450004	MW-103_20130522	SM 2510B	MT/12156		
60145450005	MW-104_20130522	SM 2510B	MT/12156		
60145450006	GW-1_20130522	SM 2510B	MT/12156		
60145450007	GW-4_20130522	SM 2510B	MT/12156		
60145450008	DR-6_20130522	SM 2510B	MT/12156		
60145450009	FB-LAB_20130522	SM 2510B	MT/12156		
60145450010	DR-10_20130522	SM 2510B	MT/12156		
60145450011	MW-2 DEEP_20130522	SM 2510B	MT/12156		
60145450012	FB-FIELD_20130522	SM 2510B	MT/12156		
60145450013	AT-2_20130522	SM 2510B	MT/12156		
60145450014	CHV-101S_20130522	SM 2510B	MT/12156		
60145450015	GW-3_20130522	SM 2510B	MT/12156		
60145450016	DR-5_20130523	SM 2510B	MT/12156		
60145450017	DR-4_20130523	SM 2510B	MT/12156		
60145450018	DR-7_20130523	SM 2510B	MT/12156		
60145450019	DR-G_20130523	SM 2510B	MT/12156		
60145450020	DR-2_20130523	SM 2510B	MT/12156		
60145450021	DR-4-SW_20130523	SM 2510B	MT/12167		
60145450022	DR-11_20130523	SM 2510B	MT/12167		
60145450023	DR-12_20130523	SM 2510B	MT/12167		
60145450001	EB-1_20130522	Calculated	MT/12166		
60145450002	EB-2_20130522	Calculated	MT/12166		
60145450003	MW-3 DEEP_20130522	Calculated	MT/12166		
60145450004	MW-103_20130522	Calculated	MT/12166		
60145450005	MW-104_20130522	Calculated	MT/12166		
60145450006	GW-1_20130522	Calculated	MT/12166		
60145450007	GW-4_20130522	Calculated	MT/12166		
60145450008	DR-6_20130522	Calculated	MT/12166		
60145450009	FB-LAB_20130522	Calculated	MT/12166		
60145450010	DR-10_20130522	Calculated	MT/12166		
60145450011	MW-2 DEEP_20130522	Calculated	MT/12166		
60145450012	FB-FIELD_20130522	Calculated	MT/12166		
60145450013	AT-2_20130522	Calculated	MT/12166		
60145450014	CHV-101S_20130522	Calculated	MT/12166		
60145450015	GW-3_20130522	Calculated	MT/12166		

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Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450016	DR-5_20130523	Calculated	MT/12166		
60145450017	DR-4_20130523	Calculated	MT/12166		
60145450018	DR-7_20130523	Calculated	MT/12166		
60145450019	DR-G_20130523	Calculated	MT/12166		
60145450020	DR-2_20130523	Calculated	MT/12166		
60145450021	DR-4-SW_20130523	Calculated	MT/12170		
60145450022	DR-11_20130523	Calculated	MT/12170		
60145450023	DR-12_20130523	Calculated	MT/12170		
60145450001	EB-1_20130522	SM 2320B	WET/41581		
60145450002	EB-2_20130522	SM 2320B	WET/41581		
60145450003	MW-3 DEEP_20130522	SM 2320B	WET/41581		
60145450004	MW-103_20130522	SM 2320B	WET/41622		
60145450005	MW-104_20130522	SM 2320B	WET/41622		
60145450006	GW-1_20130522	SM 2320B	WET/41622		
60145450007	GW-4_20130522	SM 2320B	WET/41622		
60145450008	DR-6_20130522	SM 2320B	WET/41622		
60145450009	FB-LAB_20130522	SM 2320B	WET/41622		
60145450010	DR-10_20130522	SM 2320B	WET/41622		
60145450011	MW-2 DEEP_20130522	SM 2320B	WET/41622		
60145450012	FB-FIELD_20130522	SM 2320B	WET/41622		
60145450013	AT-2_20130522	SM 2320B	WET/41622		
60145450014	CHV-101S_20130522	SM 2320B	WET/41622		
60145450015	GW-3_20130522	SM 2320B	WET/41622		
60145450016	DR-5_20130523	SM 2320B	WET/41703		
60145450017	DR-4_20130523	SM 2320B	WET/41703		
60145450018	DR-7_20130523	SM 2320B	WET/41703		
60145450019	DR-G_20130523	SM 2320B	WET/41703		
60145450020	DR-2_20130523	SM 2320B	WET/41703		
60145450021	DR-4-SW_20130523	SM 2320B	WET/41703		
60145450022	DR-11_20130523	SM 2320B	WET/41703		
60145450023	DR-12_20130523	SM 2320B	WET/41703		
60145450001	EB-1_20130522	SM 2540C	WET/41518		
60145450002	EB-2_20130522	SM 2540C	WET/41518		
60145450003	MW-3 DEEP_20130522	SM 2540C	WET/41518		
60145450004	MW-103_20130522	SM 2540C	WET/41518		
60145450005	MW-104_20130522	SM 2540C	WET/41518		
60145450006	GW-1_20130522	SM 2540C	WET/41518		
60145450007	GW-4_20130522	SM 2540C	WET/41518		
60145450008	DR-6_20130522	SM 2540C	WET/41518		
60145450009	FB-LAB_20130522	SM 2540C	WET/41518		
60145450010	DR-10_20130522	SM 2540C	WET/41518		
60145450011	MW-2 DEEP_20130522	SM 2540C	WET/41518		
60145450012	FB-FIELD_20130522	SM 2540C	WET/41518		
60145450013	AT-2_20130522	SM 2540C	WET/41518		
60145450014	CHV-101S_20130522	SM 2540C	WET/41518		
60145450015	GW-3_20130522	SM 2540C	WET/41518		

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Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450016	DR-5_20130523	SM 2540C	WET/41548		
60145450017	DR-4_20130523	SM 2540C	WET/41548		
60145450018	DR-7_20130523	SM 2540C	WET/41548		
60145450019	DR-G_20130523	SM 2540C	WET/41548		
60145450020	DR-2_20130523	SM 2540C	WET/41548		
60145450021	DR-4-SW_20130523	SM 2540C	WET/41548		
60145450022	DR-11_20130523	SM 2540C	WET/41548		
60145450023	DR-12_20130523	SM 2540C	WET/41548		
60145450001	EB-1_20130522	SM 2540D	WET/41520		
60145450002	EB-2_20130522	SM 2540D	WET/41520		
60145450003	MW-3 DEEP_20130522	SM 2540D	WET/41520		
60145450004	MW-103_20130522	SM 2540D	WET/41520		
60145450005	MW-104_20130522	SM 2540D	WET/41520		
60145450006	GW-1_20130522	SM 2540D	WET/41520		
60145450007	GW-4_20130522	SM 2540D	WET/41522		
60145450008	DR-6_20130522	SM 2540D	WET/41522		
60145450009	FB-LAB_20130522	SM 2540D	WET/41522		
60145450010	DR-10_20130522	SM 2540D	WET/41522		
60145450011	MW-2 DEEP_20130522	SM 2540D	WET/41522		
60145450012	FB-FIELD_20130522	SM 2540D	WET/41522		
60145450013	AT-2_20130522	SM 2540D	WET/41522		
60145450014	CHV-101S_20130522	SM 2540D	WET/41522		
60145450015	GW-3_20130522	SM 2540D	WET/41522		
60145450016	DR-5_20130523	SM 2540D	WET/41533		
60145450017	DR-4_20130523	SM 2540D	WET/41534		
60145450018	DR-7_20130523	SM 2540D	WET/41534		
60145450019	DR-G_20130523	SM 2540D	WET/41534		
60145450020	DR-2_20130523	SM 2540D	WET/41534		
60145450021	DR-4-SW_20130523	SM 2540D	WET/41534		
60145450022	DR-11_20130523	SM 2540D	WET/41534		
60145450023	DR-12_20130523	SM 2540D	WET/41534		
60145450001	EB-1_20130522	SM 4500-S-2 D	WET/41497		
60145450002	EB-2_20130522	SM 4500-S-2 D	WET/41497		
60145450003	MW-3 DEEP_20130522	SM 4500-S-2 D	WET/41497		
60145450004	MW-103_20130522	SM 4500-S-2 D	WET/41497		
60145450005	MW-104_20130522	SM 4500-S-2 D	WET/41497		
60145450006	GW-1_20130522	SM 4500-S-2 D	WET/41497		
60145450007	GW-4_20130522	SM 4500-S-2 D	WET/41497		
60145450008	DR-6_20130522	SM 4500-S-2 D	WET/41497		
60145450009	FB-LAB_20130522	SM 4500-S-2 D	WET/41497		
60145450010	DR-10_20130522	SM 4500-S-2 D	WET/41497		
60145450011	MW-2 DEEP_20130522	SM 4500-S-2 D	WET/41497		
60145450012	FB-FIELD_20130522	SM 4500-S-2 D	WET/41497		
60145450013	AT-2_20130522	SM 4500-S-2 D	WET/41497		
60145450014	CHV-101S_20130522	SM 4500-S-2 D	WET/41497		
60145450015	GW-3_20130522	SM 4500-S-2 D	WET/41497		

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Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450016	DR-5_20130523	SM 4500-S-2 D	WET/41574		
60145450017	DR-4_20130523	SM 4500-S-2 D	WET/41574		
60145450018	DR-7_20130523	SM 4500-S-2 D	WET/41574		
60145450019	DR-G_20130523	SM 4500-S-2 D	WET/41574		
60145450020	DR-2_20130523	SM 4500-S-2 D	WET/41574		
60145450021	DR-4-SW_20130523	SM 4500-S-2 D	WET/41574		
60145450022	DR-11_20130523	SM 4500-S-2 D	WET/41574		
60145450023	DR-12_20130523	SM 4500-S-2 D	WET/41574		
60145450001	EB-1_20130522	EPA 300.0	WETA/25019		
60145450002	EB-2_20130522	EPA 300.0	WETA/25019		
60145450003	MW-3 DEEP_20130522	EPA 300.0	WETA/25019		
60145450004	MW-103_20130522	EPA 300.0	WETA/25019		
60145450005	MW-104_20130522	EPA 300.0	WETA/25019		
60145450006	GW-1_20130522	EPA 300.0	WETA/25019		
60145450007	GW-4_20130522	EPA 300.0	WETA/25019		
60145450008	DR-6_20130522	EPA 300.0	WETA/25019		
60145450009	FB-LAB_20130522	EPA 300.0	WETA/25019		
60145450010	DR-10_20130522	EPA 300.0	WETA/25019		
60145450011	MW-2 DEEP_20130522	EPA 300.0	WETA/25019		
60145450012	FB-FIELD_20130522	EPA 300.0	WETA/25019		
60145450013	AT-2_20130522	EPA 300.0	WETA/25019		
60145450014	CHV-101S_20130522	EPA 300.0	WETA/25019		
60145450015	GW-3_20130522	EPA 300.0	WETA/25019		
60145450016	DR-5_20130523	EPA 300.0	WETA/25019		
60145450017	DR-4_20130523	EPA 300.0	WETA/25019		
60145450018	DR-7_20130523	EPA 300.0	WETA/25019		
60145450019	DR-G_20130523	EPA 300.0	WETA/25019		
60145450020	DR-2_20130523	EPA 300.0	WETA/25019		
60145450021	DR-4-SW_20130523	EPA 300.0	WETA/25020		
60145450022	DR-11_20130523	EPA 300.0	WETA/25020		
60145450023	DR-12_20130523	EPA 300.0	WETA/25020		
60145450001	EB-1_20130522	EPA 353.2	WETA/24878		
60145450002	EB-2_20130522	EPA 353.2	WETA/24878		
60145450003	MW-3 DEEP_20130522	EPA 353.2	WETA/24878		
60145450004	MW-103_20130522	EPA 353.2	WETA/24878		
60145450005	MW-104_20130522	EPA 353.2	WETA/24878		
60145450006	GW-1_20130522	EPA 353.2	WETA/24878		
60145450007	GW-4_20130522	EPA 353.2	WETA/24878		
60145450008	DR-6_20130522	EPA 353.2	WETA/24878		
60145450009	FB-LAB_20130522	EPA 353.2	WETA/24878		
60145450010	DR-10_20130522	EPA 353.2	WETA/24878		
60145450011	MW-2 DEEP_20130522	EPA 353.2	WETA/24878		
60145450012	FB-FIELD_20130522	EPA 353.2	WETA/24878		
60145450013	AT-2_20130522	EPA 353.2	WETA/24878		
60145450014	CHV-101S_20130522	EPA 353.2	WETA/24878		
60145450015	GW-3_20130522	EPA 353.2	WETA/24882		
60145450016	DR-5_20130523	EPA 353.2	WETA/24882		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450017	DR-4_20130523	EPA 353.2	WETA/24882		
60145450018	DR-7_20130523	EPA 353.2	WETA/24882		
60145450019	DR-G_20130523	EPA 353.2	WETA/24882		
60145450020	DR-2_20130523	EPA 353.2	WETA/24882		
60145450021	DR-4-SW_20130523	EPA 353.2	WETA/24882		
60145450022	DR-11_20130523	EPA 353.2	WETA/24882		
60145450023	DR-12_20130523	EPA 353.2	WETA/24882		
60145450001	EB-1_20130522	SM 4500-CN-E	WETA/24872		
60145450002	EB-2_20130522	SM 4500-CN-E	WETA/24872		
60145450003	MW-3 DEEP_20130522	SM 4500-CN-E	WETA/24872		
60145450004	MW-103_20130522	SM 4500-CN-E	WETA/24872		
60145450005	MW-104_20130522	SM 4500-CN-E	WETA/24872		
60145450006	GW-1_20130522	SM 4500-CN-E	WETA/24872		
60145450007	GW-4_20130522	SM 4500-CN-E	WETA/24872		
60145450008	DR-6_20130522	SM 4500-CN-E	WETA/24872		
60145450009	FB-LAB_20130522	SM 4500-CN-E	WETA/24872		
60145450010	DR-10_20130522	SM 4500-CN-E	WETA/24872		
60145450011	MW-2 DEEP_20130522	SM 4500-CN-E	WETA/24872		
60145450012	FB-FIELD_20130522	SM 4500-CN-E	WETA/24872		
60145450013	AT-2_20130522	SM 4500-CN-E	WETA/24872		
60145450014	CHV-101S_20130522	SM 4500-CN-E	WETA/24890		
60145450015	GW-3_20130522	SM 4500-CN-E	WETA/24890		
60145450016	DR-5_20130523	SM 4500-CN-E	WETA/24890		
60145450017	DR-4_20130523	SM 4500-CN-E	WETA/24890		
60145450018	DR-7_20130523	SM 4500-CN-E	WETA/24890		
60145450019	DR-G_20130523	SM 4500-CN-E	WETA/24890		
60145450020	DR-2_20130523	SM 4500-CN-E	WETA/24890		
60145450021	DR-4-SW_20130523	SM 4500-CN-E	WETA/24890		
60145450022	DR-11_20130523	SM 4500-CN-E	WETA/24890		
60145450023	DR-12_20130523	SM 4500-CN-E	WETA/24890		
60145450001	EB-1_20130522	SM 5310C	WETA/25032		
60145450002	EB-2_20130522	SM 5310C	WETA/25032		
60145450003	MW-3 DEEP_20130522	SM 5310C	WETA/25032		
60145450004	MW-103_20130522	SM 5310C	WETA/25032		
60145450005	MW-104_20130522	SM 5310C	WETA/25032		
60145450006	GW-1_20130522	SM 5310C	WETA/25032		
60145450007	GW-4_20130522	SM 5310C	WETA/25032		
60145450008	DR-6_20130522	SM 5310C	WETA/25032		
60145450009	FB-LAB_20130522	SM 5310C	WETA/25032		
60145450010	DR-10_20130522	SM 5310C	WETA/25032		
60145450011	MW-2 DEEP_20130522	SM 5310C	WETA/25054		
60145450012	FB-FIELD_20130522	SM 5310C	WETA/25054		
60145450013	AT-2_20130522	SM 5310C	WETA/25054		
60145450014	CHV-101S_20130522	SM 5310C	WETA/25054		
60145450015	GW-3_20130522	SM 5310C	WETA/25054		
60145450016	DR-5_20130523	SM 5310C	WETA/25054		
60145450017	DR-4_20130523	SM 5310C	WETA/25054		

**REPORT OF LABORATORY ANALYSIS**

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MAY 2013 RICO WATER SAMPLING  
Pace Project No.: 60145450

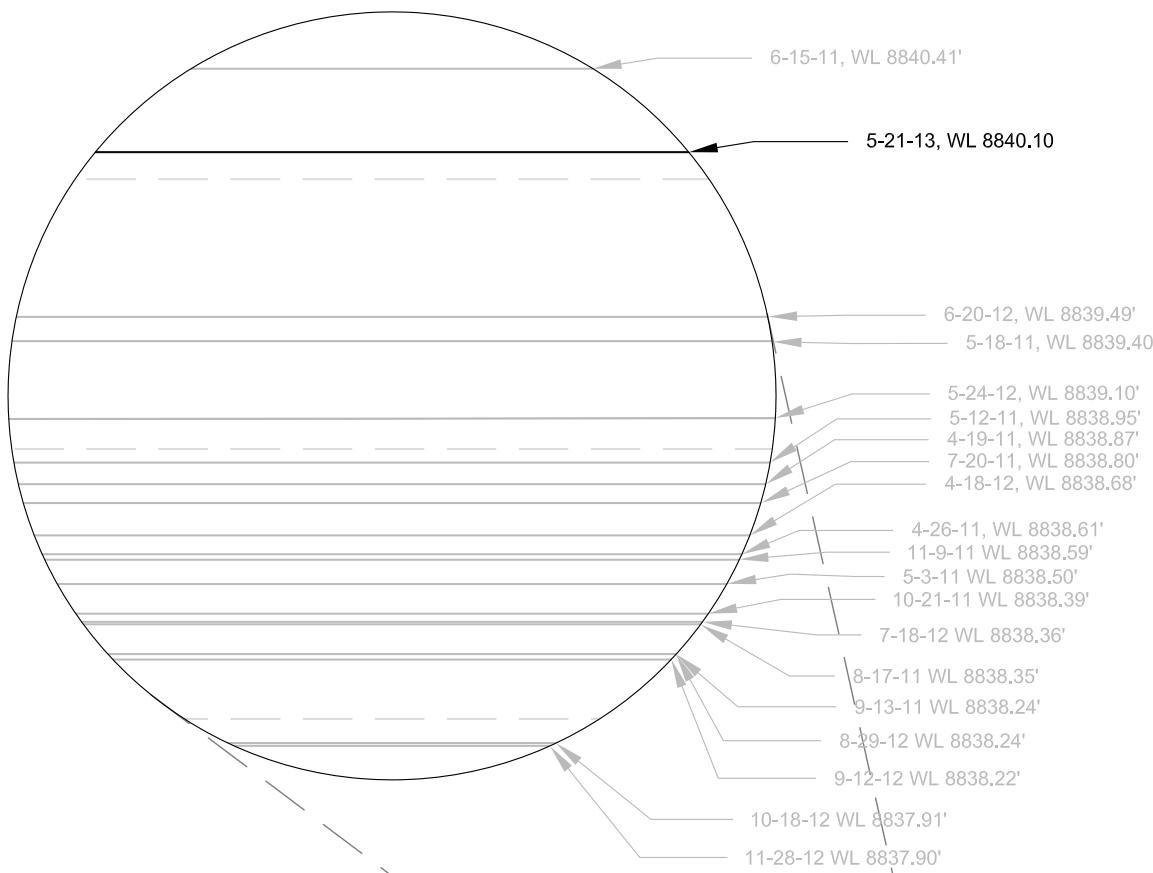
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60145450018	DR-7_20130523	SM 5310C	WETA/25054		
60145450019	DR-G_20130523	SM 5310C	WETA/25054		
60145450020	DR-2_20130523	SM 5310C	WETA/25054		
60145450021	DR-4-SW_20130523	SM 5310C	WETA/25054		
60145450022	DR-11_20130523	SM 5310C	WETA/25054		
60145450023	DR-12_20130523	SM 5310C	WETA/25054		

## REPORT OF LABORATORY ANALYSIS

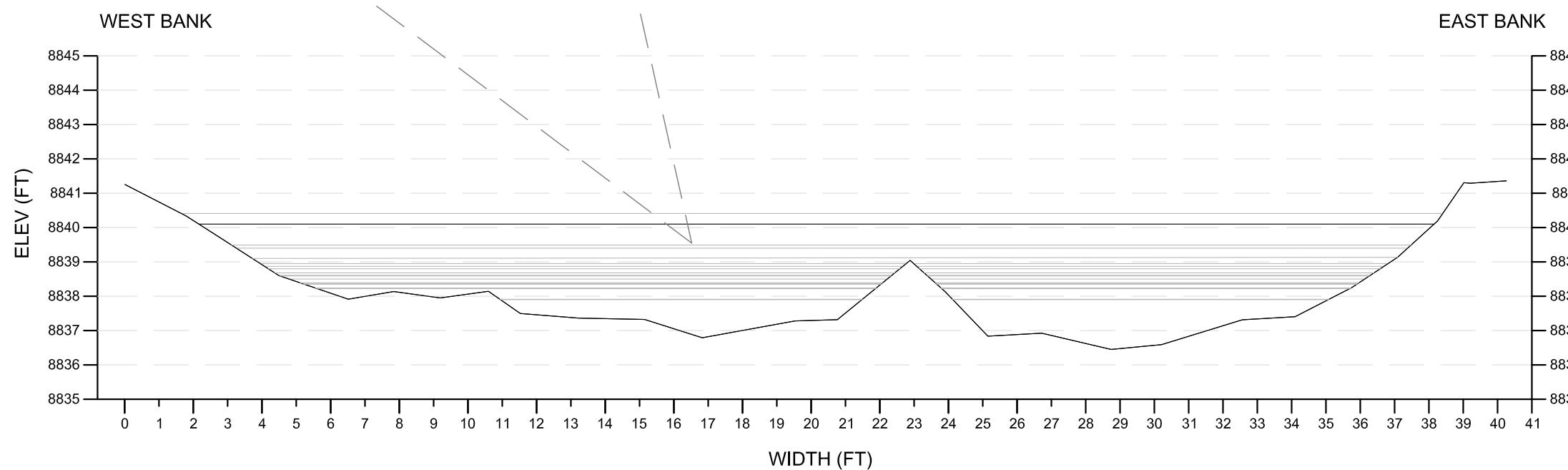
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**Appendix E**

**Flow Cross Sections**



## DR-1 CROSS SECTION



**4** **CROSS SECTION AT DR-1**  
 SCALE - 1" = 4'

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 SALT LAKE CITY, UTAH, 84119 AND SHALL NOT BE COPIED, REDUCED, OR REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

General Notes		
Scale in Feet		
0	2	4
No.	Revision/Issue	Date

ATLANTIC RICHFIELD COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

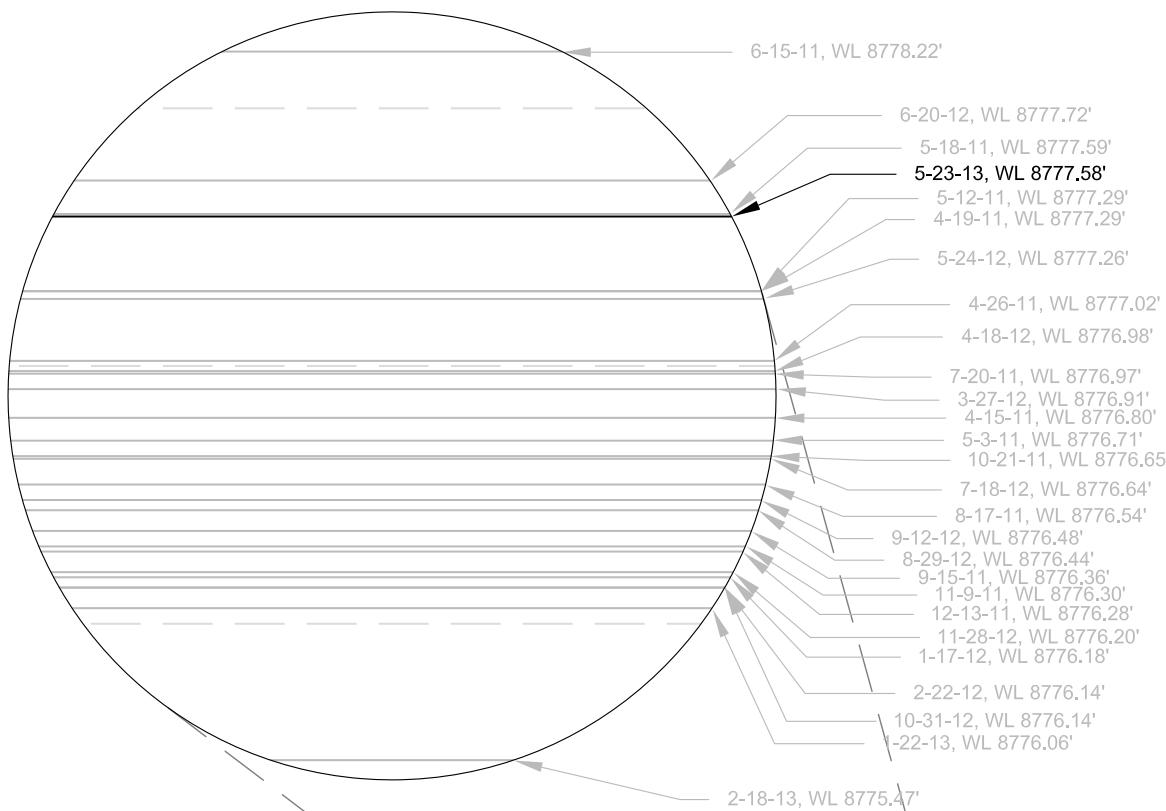
DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

**RICO SURFACE  
WATER SAMPLING**  
**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-1**

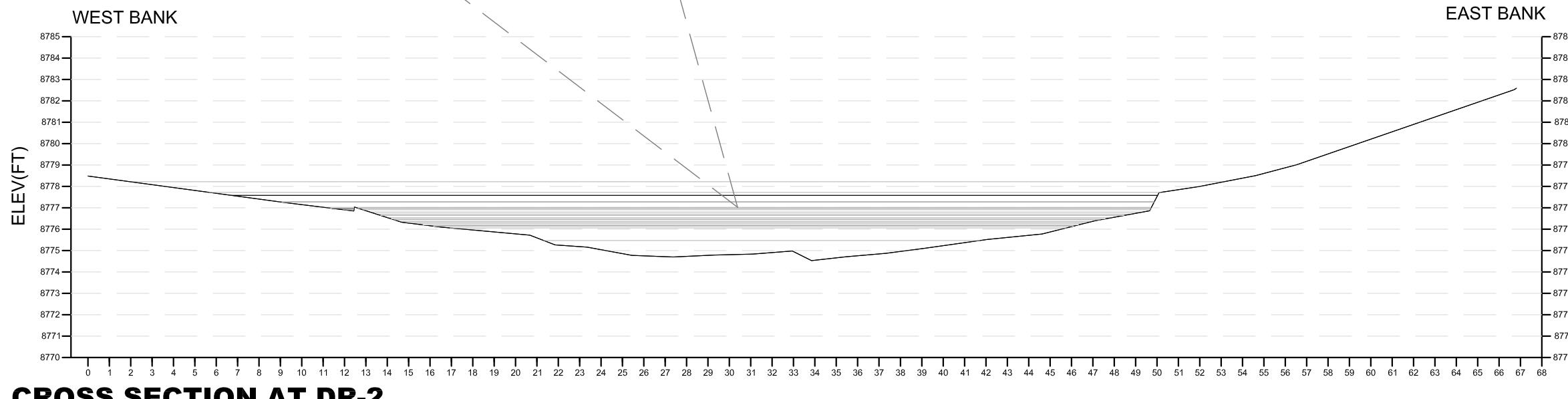
RICO, CO

Project	Figure
Date	21-MAY-2013
Scale	

**4**



## DR-2 CROSS SECTION



**5** **CROSS SECTION AT DR-2**  
SCALE - 1" = 6'

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General Notes		
<i>[Large empty area for notes]</i>		
Scale in Feet 0 3 6		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

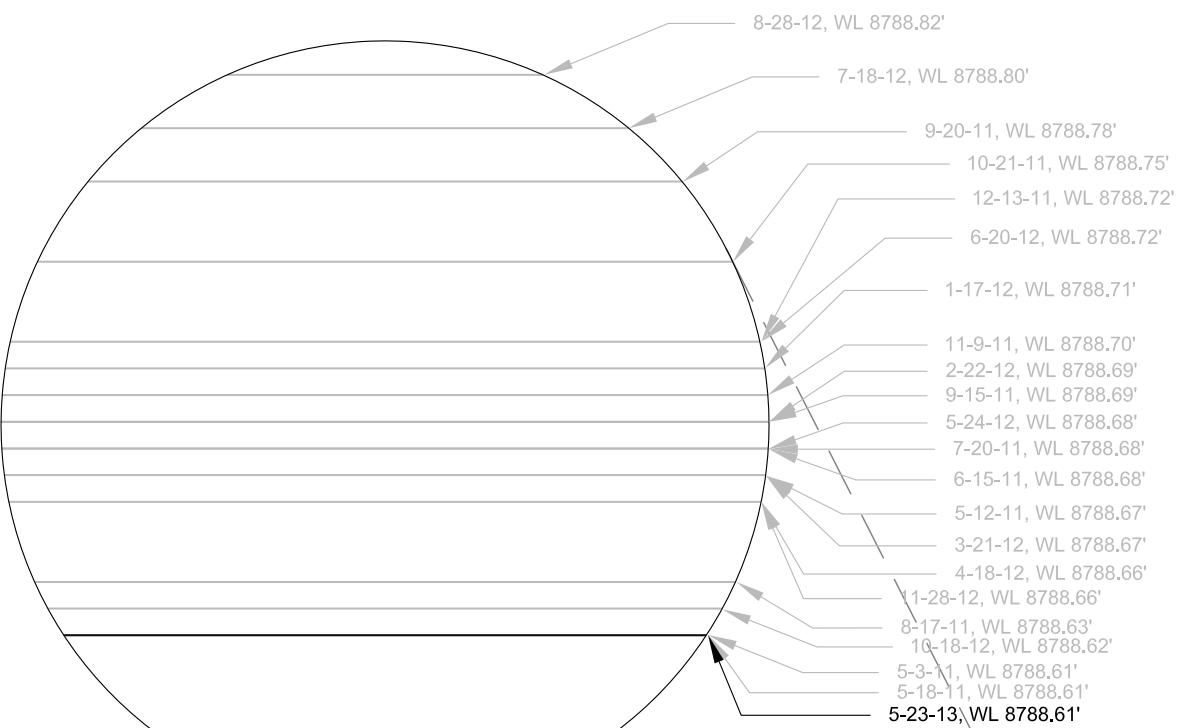
DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

**RICO SURFACE  
WATER SAMPLING**

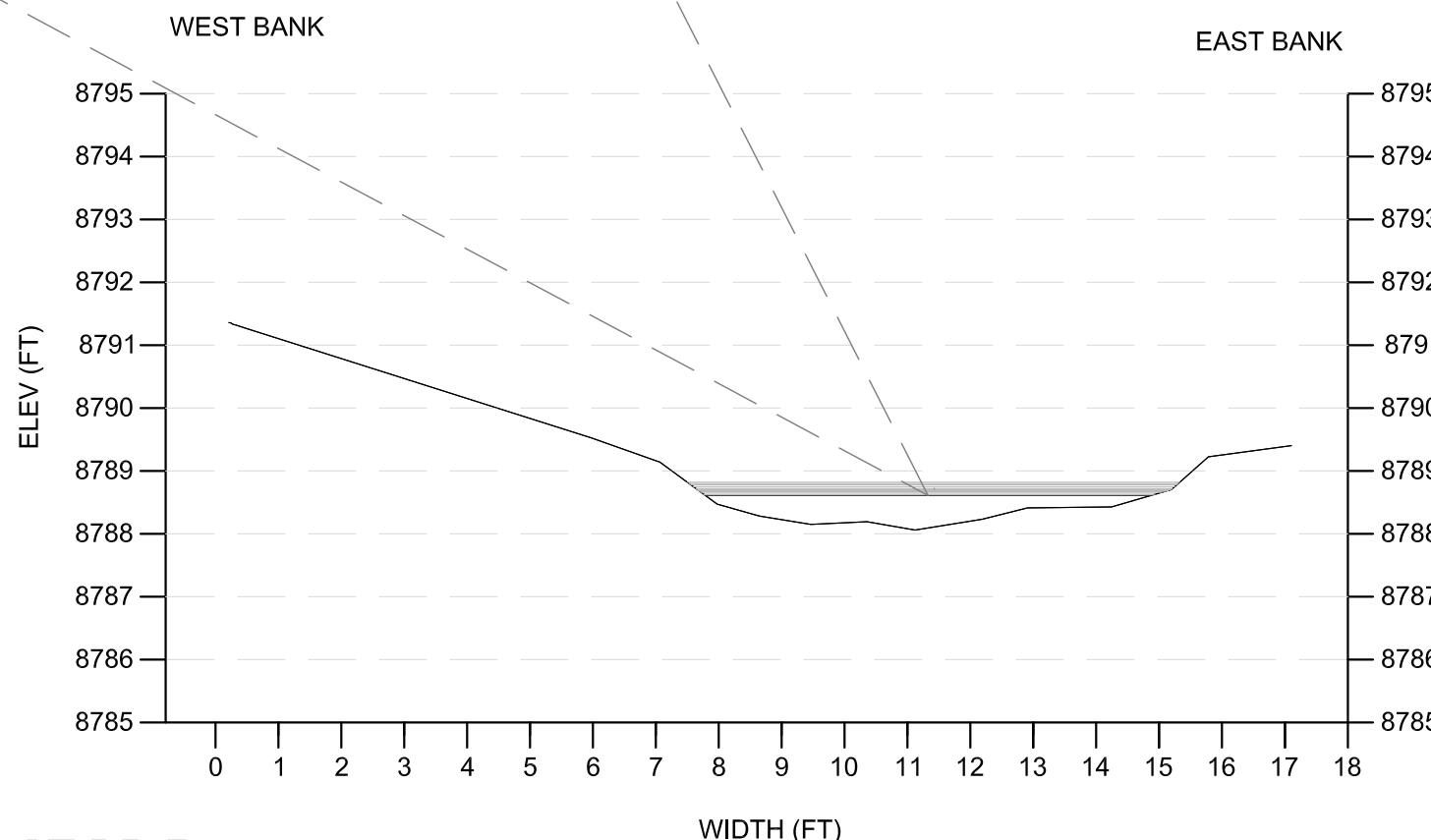
**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-2**

RICO, CO

Project	Figure
Date 23-MAY-2013	Scale
5	



## DR-5 CROSS SECTION



**CROSS SECTION AT DR-5**  
SCALE - 1" = 3'

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General Notes		
Scale in Feet		
0      1.5      3		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

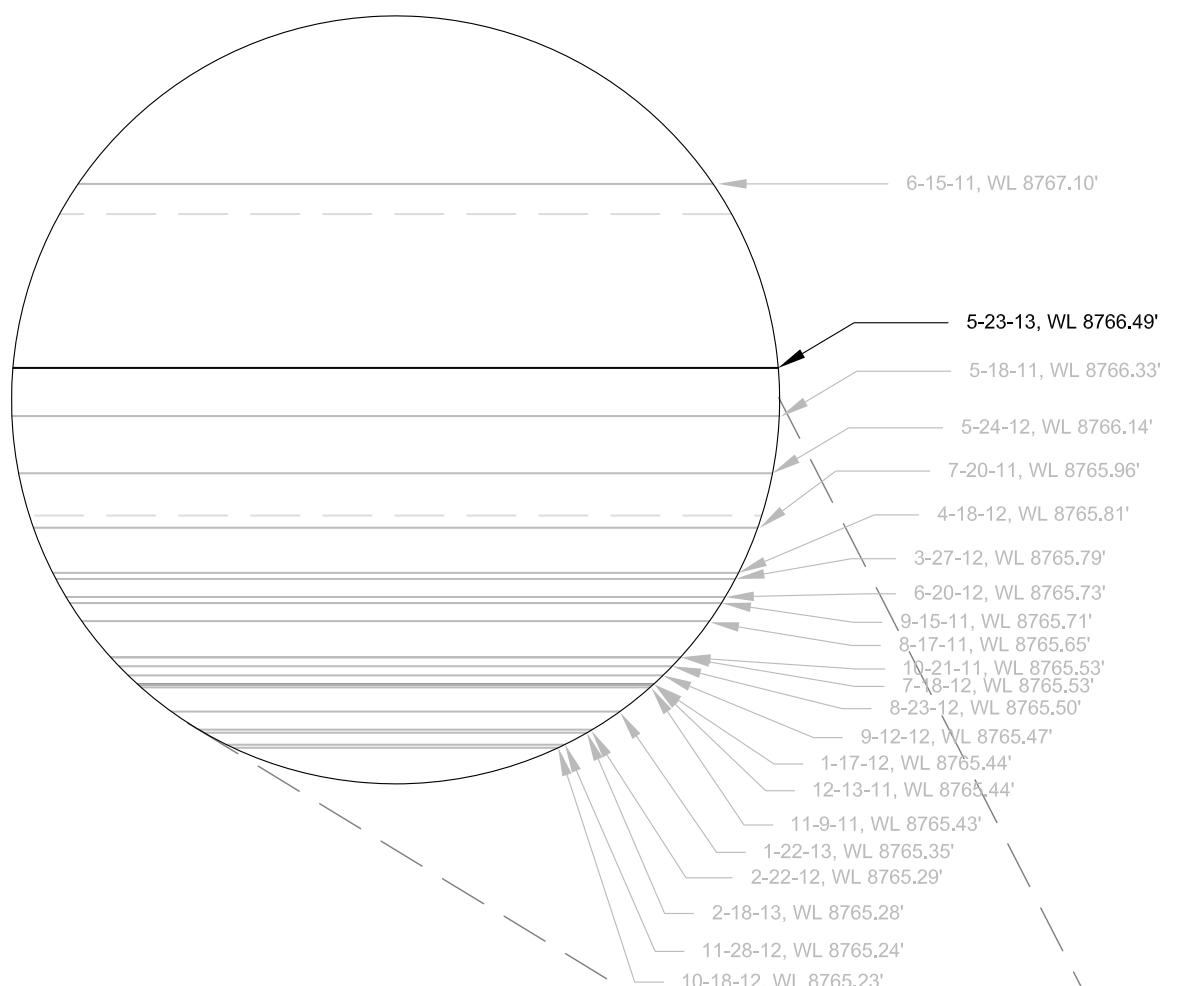
DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

**RICO SURFACE  
WATER SAMPLING**  
**POND 8 EMBANKMENT  
CROSS SECTION AT  
SAMPLING STATION DR-5**

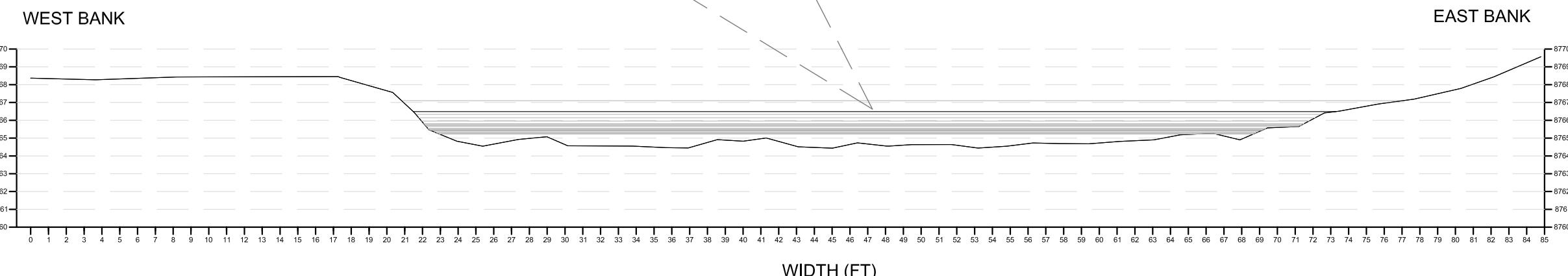
RICO, CO

Project	Figure
Date	23-MAY-2013
Scale	

6



## DR-7 CROSS SECTION



**CROSS SECTION AT DR-7**  
 SCALE - 1" = 7'

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General Notes		
<i>[Large empty area for notes]</i>		
Scale in Feet 0 3.5 7		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD  
COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

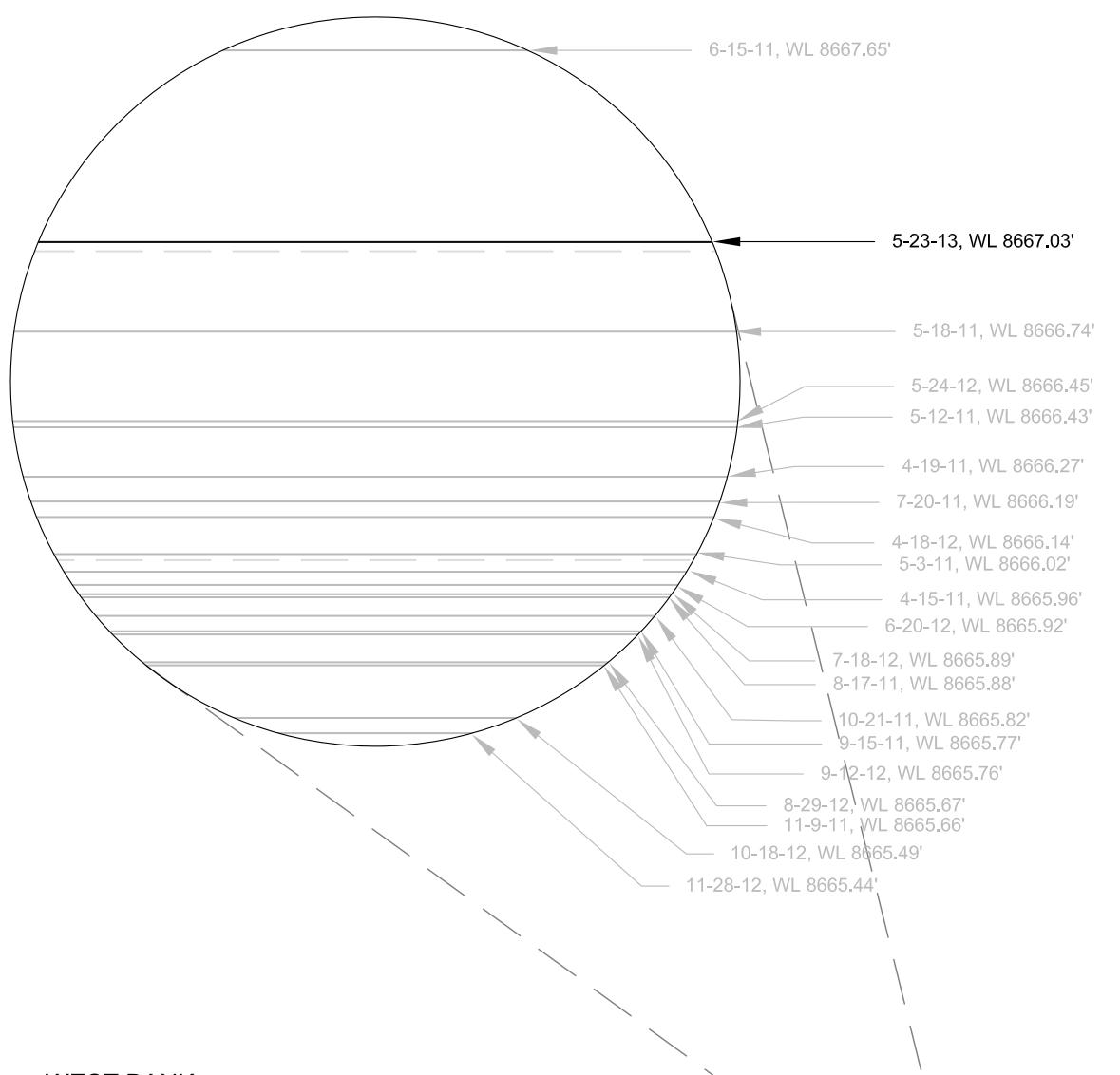
**RICO SURFACE  
WATER SAMPLING**

**DOLORES RIVER CROSS  
SECTION AT SAMPLING  
STATION DR-7**

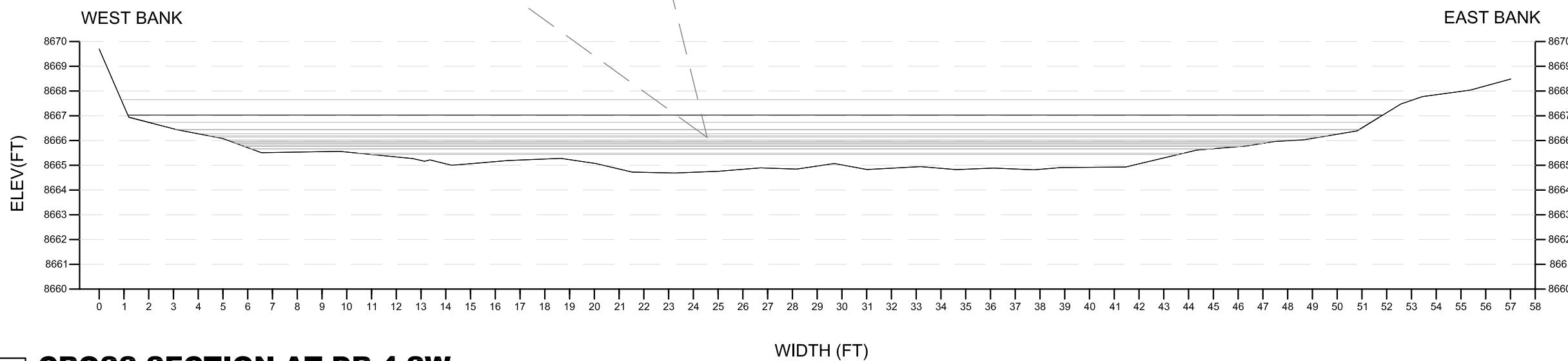
RICO, CO

Project	Figure
Date 23-MAY-2013	Scale

7



## DR-4-SW CROSS SECTION



**CROSS SECTION AT DR-4-SW**

SCALE - 1" = 5'

General Notes		
NOTE: COULD NOT OBTAIN FLOW DUE TO LARGE ICE SHELF OVER RIVER PREVENTING SAFE ACCESS		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD

ENGINEER: CS, MAD

APPROVED:

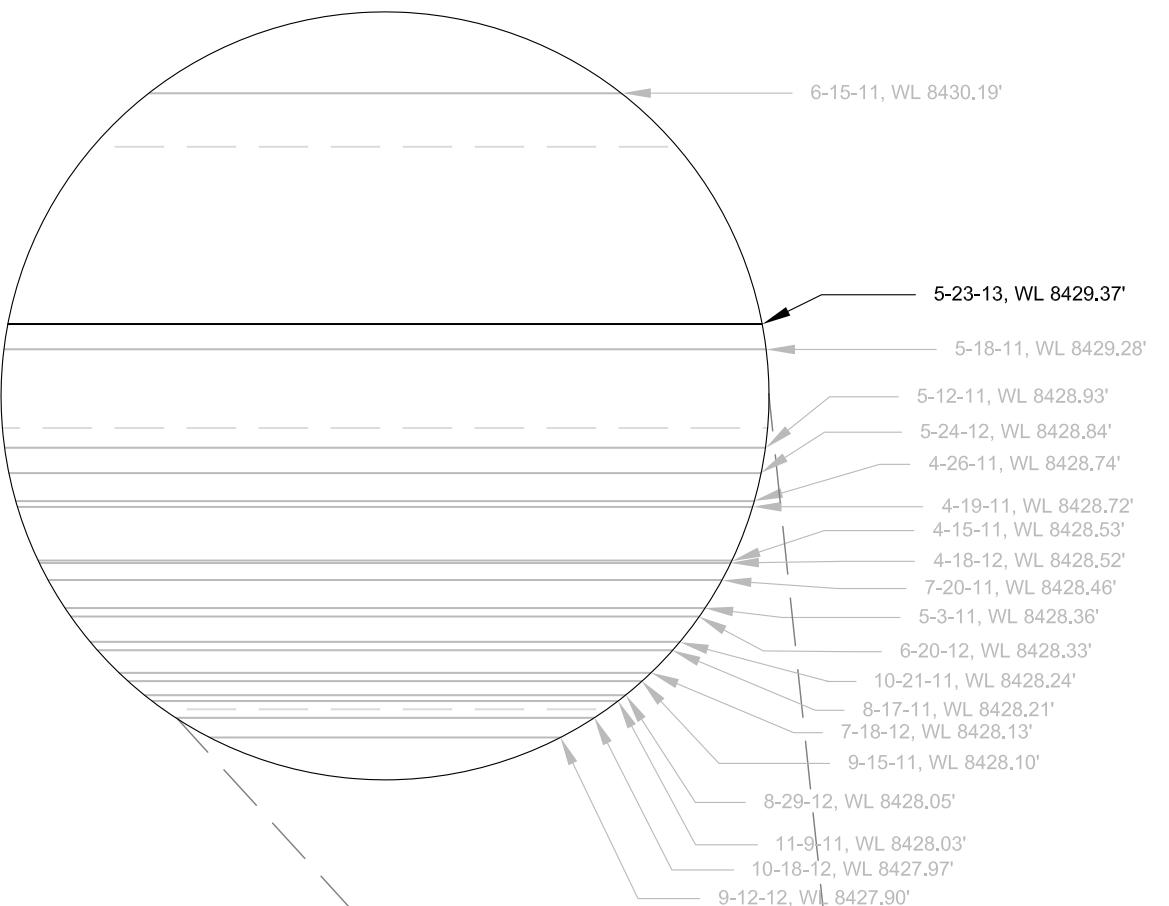
**RICO SURFACE WATER SAMPLING**

**DOLORES RIVER CROSS SECTION AT SAMPLING STATION DR-4-SW**

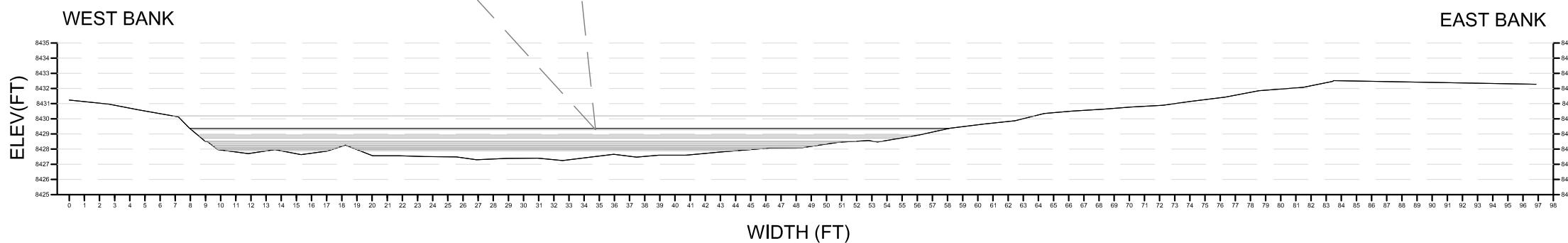
RICO, CO

Project	Figure
Date	23-MAY-2013
Scale	

8



## DR-G CROSS SECTION



**CROSS SECTION AT DR-G**  
SCALE - 1" = 9'

General Notes		
NOTE: COULD NOT OBTAIN FLOW DUE TO LARGE ICE SHELF OVER RIVER PREVENTING SAFE ACCESS		
No.	Revision/Issue	Date

ATLANTIC RICHFIELD COMPANY



ANDERSON  
ENGINEERING COMPANY, INC.

DRAWN BY: MAD  
ENGINEER: CS, MAD  
APPROVED:

**RICO SURFACE WATER SAMPLING**

**DOLORES RIVER CROSS SECTION AT SAMPLING STATION DR-G**

RICO, CO

Project	Figure
Date	23-MAY-2013
Scale	

9

**Appendix F**  
**Chain of Custody Records**



Sample Condition Upon Receipt  
ESI Tech Spec Client

WO# : 60144985



60144985

Client Name: BP Anderson

Courier: Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: 8030 5051 4554

Pace Shipping Label Used? Yes  No

Optional
Proj Due Date:
Proj Name:

Custody Seal on Cooler/Box Present: Yes  No  Seals intact: Yes  No

Packing Material: Bubble Wrap  Bubble Bags  Foam  None  Other  2pls

Thermometer Used: T-112 / T-194 Type of Ice: Wet Blue None  Samples received on ice, cooling process has begun.

Cooler Temperature: 1.4, 0.4, 0.6

(circle one)

Date and initials of person examining contents: 5-18-13 BD

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Filtered volume received for dissolved tests?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Includes date/time/ID/analyses	Matrix: VV	13.	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.	
Exceptions: VOA, coliform, <del>FOC</del> , O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed	Lot # of added preservative
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank lot # (if purchased):		15.	
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:	

Client Notification/ Resolution: Copy COC to Client? Y /  N Field Data Required? Y /

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 9:50 Start:

End: 10:10 End:

Temp: Temp:

Project Manager Review: dmw/mw

Date: 6/20/13



977 West 2100 South  
Salt Lake City, UT  
84119  
(801) 972-6222  
FAX (801) 972-6235

Client: BP  
Project: May 2013 Rico Water Sampling

---

AECI Contact Mark DeFriez (801) 234-9583

Lab Name: Pace Analytical Services  
Lab Contact: Heather Wilson, (913) 563-1407  
Lab Address: 9608 Loiret Blvd.  
Lenexa, KS 66219

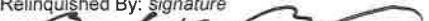
## **CHAIN OF CUSTODY RECORD**

COC# \_\_\_\_\_  
Page 1 of 1

Matrix	No. of Containers	Analysis Requested										Matrix Codes (W) Water (S) Soil (L) Liquid	QC: (circle one)			
		Total Metals / Hardness / Silica	Potentially Dissolved Metals	Dissolved Metals	Alkalinity / TDS / TSS / Sulfate / Chloride	Cyanide	Salinity	Total Organic Carbon / Nitrate	Sulfide				I	II	III	IV
W	8	X	X	X	X	X	X	X	X			IBP211 IBP32 <sup>12,3</sup> IBPAC <sup>12,3</sup> IBP34 1AG33 28PBNT <sup>12</sup> IBPAC <sup>12</sup> 001				
W	8	X	X	X	X	X	X	X	X			002				
W	8	X	X	X	X	X	X	X	X			003				
W	8	X	X	X	X	X	X	X	X			004				
W	8	X	X	X	X	X	X	X	X			005				
W	8	X	X	X	X	X	X	X	X			006				
W	8	X	X	X	X	X	X	X	X			007				
W	8	X	X	X	X	X	X	X	X			008				
W	8	X	X	X	X	X	X	X	X			009				
W	8	X	X	X	X	X	X	X	X			010				
W	8	X	X	X	X	X	X	X	X			011				
W	8	X	X	X	X	X	X	X	X			012				
W	8	X	X	X	X	X	X	X	X			013				
W	8	X	X	X	X	X	X	X	X			014				

60144985

## COMMENTS

Relinquished By: signature 	Date	Time	Received By: signature 5/17/13 1:48pm  IPACE	Date	Time	Special Instructions cooler temp: 1.8°C, 0.4°C, 0.6°C
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
Relinquished By: signature	Date	Time	Received By: signature	Date	Time	
Relinquished By: signature 	Date	Time	Received By: signature	Date	Time	

# Chain of Custody



Workorder: 60144985      Workorder Name: MAY 2013 RICO WATER SAMPLING      Owner Received Date: 5/18/2013 Results Requested By: 6/3/2013

Report To:	Subcontract To:					Requested Analysis												
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	none	Preserved Containers			Salinity*								
1	MW-4 SHALLOW_20130516	PS	5/16/2013 15:35	60144985001	Water	1				X								
2	P13-102_20130516	PS	5/16/2013 15:45	60144985002	Water	1				X								
3	MW-4 DEEP_20130516	PS	5/16/2013 15:30	60144985003	Water	1				X								
4	P13-103_20130516	PS	5/16/2013 15:55	60144985004	Water	1				X								
5	MW-1 DEEP_20130516	PS	5/16/2013 16:05	60144985005	Water	1				X								
6	MW-1 SHALLOW_20130516	PS	5/16/2013 16:10	60144985006	Water	1				X								
7	MW-204_20130516	PS	5/16/2013 12:30	60144985007	Water	1				X								
8	MW-102_20130515	PS	5/15/2013 16:40	60144985008	Water	1				X								
9	MW-101_20130515	PS	5/15/2013 16:40	60144985009	Water	1				X								
10	GW-7_20130515	PS	5/15/2013 16:50	60144985010	Water	1				X								
11	MW-6 DEEP_20130515	PS	5/15/2013 14:30	60144985011	Water	1				X								
12	MW-6 SHALLOW_20130515	PS	5/15/2013 14:50	60144985012	Water	1				X								
13	DR-8_20130515	PS	5/15/2013 11:09	60144985013	Water	1				X								
14	DR-3_20130515	PS	5/15/2013 11:10	60144985014	Water	1				X								
Comments:																		
Transfers	Released By	Date/Time	Received By	Date/Time	*No J flags													
1		5/20/13 0700																
2			Rebecca - Pace	5/18/13 0955														
3																		
Cooler Temperature on Receipt				0.0 °C	Custody Seal	<input checked="" type="checkbox"/> Y	N	Received on Ice	<input checked="" type="checkbox"/> Y	N	Samples Intact	<input checked="" type="checkbox"/> Y	N					

	Document Name: <b>Sample Condition Upon Receipt Form</b>	Document Revised: 14Nov2012 Page 1 of 1
	Document No.: <b>F-MT-C-184-rev.02</b>	Issuing Authority: <b>Pace Montana Quality Office</b>

Sample Condition Upon Receipt	Client Name: <i>Pace-KS</i>	Project #: <b>WO# : 10229427</b>																																																									
Courier:	<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other: _____	 10229427																																																									
Tracking Number:	5552 4296 5039																																																										
Custody Seal on Cooler/Box Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Optional: Proj. Due Date: _____ Proj. Name: _____																																																											
Packing Material: <input checked="" type="checkbox"/> Bubble Wrap <input type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input type="checkbox"/> Other: _____ Temp Blank? <input type="checkbox"/> Yes <input type="checkbox"/> No																																																											
Thermometer Used: <input checked="" type="checkbox"/> 1383045 <input type="checkbox"/> 135 <input type="checkbox"/> NA    Type of Ice: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None <input checked="" type="checkbox"/> Samples on ice, cooling process has begun																																																											
Cooler Temp Read: <u>0.0</u> Date and Initials of Person Examining Contents: <u>MW 5/21/13</u>																																																											
Cooler Temp Corrected: <u>0.0</u> Biological Tissue Frozen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																											
Temp should be above freezing to 6°C      Comments: _____																																																											
<table border="1"> <tr> <td>Chain of Custody Present?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>1.</td> </tr> <tr> <td>Chain of Custody Filled Out?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>2.</td> </tr> <tr> <td>Chain of Custody Relinquished?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>3.</td> </tr> <tr> <td>Sampler Name and Signature on COC?</td> <td><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>4.</td> </tr> <tr> <td>Samples Arrived within Hold Time?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>5.</td> </tr> <tr> <td>Short Hold Time Analysis (&lt;72 hr)?</td> <td><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>6.</td> </tr> <tr> <td>Rush Turn Around Time Requested?</td> <td><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>7.</td> </tr> <tr> <td>Sufficient Volume?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>8.</td> </tr> <tr> <td>Correct Containers Used? -Pace Containers Used?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>9.</td> </tr> <tr> <td>Containers Intact?</td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>10.</td> </tr> <tr> <td>Filtered Volume Received for Dissolved Tests?</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>11.</td> </tr> <tr> <td>Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: <u>H2O</u></td> <td><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    <input type="checkbox"/> N/A</td> <td>12.</td> </tr> <tr> <td>All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>13.      <input type="checkbox"/> HNO<sub>3</sub>    <input type="checkbox"/> H<sub>2</sub>SO<sub>4</sub>    <input type="checkbox"/> NaOH    <input type="checkbox"/> HCl</td> </tr> <tr> <td>All containers needing preservation are found to be in compliance with EPA recommendation? (HNO<sub>3</sub>, H<sub>2</sub>SO<sub>4</sub>, HCl&lt;2; NaOH&gt;12)</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>Sample # _____</td> </tr> <tr> <td>Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)</td> <td><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No</td> <td>Initial when completed: _____      Lot # of added preservative: _____</td> </tr> <tr> <td>Samples checked for dechlorination?</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>14.</td> </tr> <tr> <td>Headspace in VOA Vials (&gt;6mm)?</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>15.</td> </tr> <tr> <td>Trip Blank Present?</td> <td><input type="checkbox"/> Yes    <input type="checkbox"/> No    <input checked="" type="checkbox"/> N/A</td> <td>16.</td> </tr> <tr> <td>Pace Trip Blank Lot # (if purchased): _____</td> <td colspan="2"></td> </tr> </table>			Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	Sampler Name and Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	Correct Containers Used? -Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: <u>H2O</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl	All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample # _____	Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____      Lot # of added preservative: _____	Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	Pace Trip Blank Lot # (if purchased): _____		
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.																																																									
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.																																																									
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.																																																									
Sampler Name and Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.																																																									
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.																																																									
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.																																																									
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.																																																									
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Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.																																																									
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Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: <u>H2O</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.																																																									
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl																																																									
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample # _____																																																									
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____      Lot # of added preservative: _____																																																									
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.																																																									
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.																																																									
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.																																																									
Pace Trip Blank Lot # (if purchased): _____																																																											

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes     No

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_  
  
  
  
  

Project Manager Review: 

Date: 5/21/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

# Chain of Custody

1153

10229464



Workorder: 60144985

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/18/2013 Results Requested By: 6/3/2013

Report To		Subcontract To		Requested Analysis											
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers				HNO3	200.8 Total Metal + Hardness + Silica	200.8 Dissolved Metals	245.1 Total Mercury	245.1 Dissolved Mercury	LAB USE ONLY
1	MW-4 SHALLOW_20130516	PS	5/16/2013 15:35	60144985001	Water	2				X	X	X	X		
2	P13-102_20130516	PS	5/16/2013 15:45	60144985002	Water	2				X	X	X	X		
3	MW-4 DEEP_20130516	PS	5/16/2013 15:30	60144985003	Water	2				X	X	X	X		
4	P13-103_20130516	PS	5/16/2013 15:55	60144985004	Water	2				X	X	X	X		
5	MW-1 DEEP_20130516	PS	5/16/2013 16:05	60144985005	Water	2				X	X	X	X		
6	MW-1 SHALLOW_20130516	PS	5/16/2013 16:10	60144985006	Water	2				X	X	X	X		
7	MW-204_20130516	PS	5/16/2013 12:30	60144985007	Water	2				X	X	X	X		
8	MW-102_20130515	PS	5/15/2013 16:40	60144985008	Water	2				X	X	X	X		
9	MW-101_20130515	PS	5/15/2013 16:40	60144985009	Water	2				X	X	X	X		
10	GW-7_20130515	PS	5/15/2013 16:50	60144985010	Water	2				X	X	X	X		
11	MW-6 DEEP_20130515	PS	5/15/2013 14:30	60144985011	Water	2				X	X	X	X		
12	MW-6 SHALLOW_20130515	PS	5/15/2013 14:50	60144985012	Water	2				X	X	X	X		
13	DR-8_20130515	PS	5/15/2013 11:09	60144985013	Water	2				X	X	X	X		
14	DR-3_20130515	PS	5/15/2013 11:10	60144985014	Water	2				X	X	X	X		
Comments															
Transfers	Released By	Date/Time	Received By	Date/Time	Use Profile 26985. No J flags.										
1		5/20/13 1700	TN/Pee	5/21/13 0930											
Pages															
Cooler Temperature on Receipt	12.5 °C	Custody Seal	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	Received on Ice	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	Samples Intact	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N								



Sample Condition  
Upon Receipt

Client Name:

Pace ICS

Project #:

WO# : 10229464

Courier:  FedEx  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: SSSZ 4796 So17



Custody Seal on Cooler/Box Present?

Yes  No

Seals Intact?

Yes  No

Optional: Proj. Due Date: Proj. Name:

Packing Material:

Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_

Temp Blank?  Yes  No

Thermom. Used:  88A912167504  80512447  72337080 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temp Read (°C): 12.6 Correction Factor: -1.1

Cooler Temp Corrected (°C): 12.5

Biological Tissue Frozen?  Yes  No

Temp should be above freezing to 6°C

Date and Initials of Person Examining Contents: 5/21/13 TN

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample # <u>All 2</u>
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Kale Xiong

Date: 5/22/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Sample Condition Upon Receipt  
ESI Tech Spec Client

WO# : 60145328



60145328

Client Name: BP - Anderson

Optional

Proj Due Date:

Proj Name:

Courier: Fed Ex  UPS  USPS  Client  Commercial  Pace  Other   
Tracking #: 1Z 733 W87 22 1005 8367 Pace Shipping Label Used? Yes  No

1Z 733 W87 22 1005 8376-

Custody Seal on Cooler/Box Present: Yes  No  Seals intact: Yes  No

Packing Material: Bubble Wrap  Bubble Bags  Foam  None  Other

Thermometer Used: F-112 / T-194 Type of Ice: Wet Blue None  Samples received on ice, cooling process has begun.

Cooler Temperature: 4.2, 4.8

(circle one)

Date and initials of person examining  
contents: JDS 5/23/13 1135

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>Note: 4.8</u>
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses	Matrix: <u>water</u>	13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>JDS</u> Lot # of added preservative
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank lot # (if purchased): <u>14</u>		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y  N Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1135 Start:

End: 1145 End:

Temp: Temp:

Project Manager Review: sdhaw/mw

Date: 5/23/13



# Chain of Custody



Workorder: 60145328

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/23/2013 Results Requested By: 6/7/2013

Report To		Subcontract To					Requested Analysis																
Heather Wilson Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665 Fax (913)599-1759		Pace Analytical Billings MT 602 S 25th Street Billings, MT, MT 591014549 Phone (406) 254-7226																					
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	none	Preserved Containers				Salinity	10230019 LAB USE ONLY											
1	DR-1_20130521	PS	5/21/2013 09:45	60145328001	Water	1				X													
2	DR-9_20130521	PS	5/21/2013 09:47	60145328002	Water	1				X													
3	GW-5_20130521	PS	5/21/2013 10:25	60145328003	Water	1				X													
4	GW-6_20130521	PS	5/21/2013 10:57	60145328004	Water	1				X													
5	MW-5 SHALLOW_20130521	PS	5/21/2013 11:27	60145328005	Water	1				X													
6	MW-5 DEEP_20130521	PS	5/21/2013 11:33	60145328006	Water	1				X													
7	BAH-01_20130521	PS	5/21/2013 13:40	60145328007	Water	1				X													
Comments																							
Transfers	Released By	Date/Time	Received By			Date/Time	No J flags																
1	<i>J. M. Wilson - Pace</i>	5/23/13 1200																					
2	<i>J. M. Wilson - Pace</i>	5/24/13 1008	<i>Normal Chalky/100</i>			5/24/13 1008																	
3																							
Cooler Temperature on Receipt		1.2 °C	Custody Seal		<input checked="" type="radio"/> Y or <input type="radio"/> N	Received on Ice		<input checked="" type="radio"/> Y or <input type="radio"/> N	Samples Intact		<input checked="" type="radio"/> Y or <input type="radio"/> N												

Document Name:  
Sample Condition Upon Receipt FormDocument No.:  
F-MT-C-184-rev.02

Document Revised: 14Nov2012

Page 1 of 1

Issuing Authority:  
Pace Montana Quality OfficeSample Condition  
Upon Receipt

Client Name:

Project #:

Pace KS

WO# : 10230019

Courier:  FedEx  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 555241965304

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No Optional: Proj. Due Date: Proj. Name:Packing Material:  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_ Temp Blank?  Yes  NoThermometer Used:  1383045  135  NA Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temp Read: 1.2

Date and Initials of Person Examining Contents: NC1 5/24/13

Cooler Temp Corrected: 1.2

Biological Tissue Frozen?  Yes  No

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	.
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: H2O		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: Lot # of added preservative:
Samples checked for dechlorination?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

## CLIENT NOTIFICATION/RESOLUTION

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review:

Date: 5-26-13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

## Chain of Custody

MBU

10229945



Workorder: 60145328

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/23/2013 Results Requested By: 6/7/2013

Report To		Subcontract To					Requested Analysis																						
Heather Wilson Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665 Fax (913)599-1759		Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700																											
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					200.8 Total Metal + Silica	200.8 Dissolved Metals	245.1 Total Mercury	245.1 Dissolved Mercury															
						HNO3																							
1	DR-1_20130521	PS	5/21/2013 09:45	60145328001	Water	2						X	X	X	X												LAB USE ONLY		
2	DR-9_20130521	PS	5/21/2013 09:47	60145328002	Water	2						X	X	X	X												001		
3	GW-5_20130521	PS	5/21/2013 10:25	60145328003	Water	2						X	X	X	X												002		
4	GW-6_20130521	PS	5/21/2013 10:57	60145328004	Water	2						X	X	X	X												003		
5	MW-5 SHALLOW_20130521	PS	5/21/2013 11:27	60145328005	Water	2						X	X	X	X												004		
6	MW-5 DEEP_20130521	PS	5/21/2013 11:33	60145328006	Water	2						X	X	X	X												005		
7	BAH-01_20130521	PS	5/21/2013 13:40	60145328007	Water	2						X	X	X	X												006		
																											007		
															Comments														
Transfers	Released By	Date/Time		Received By	Date/Time		Use Profile 26985. No J flags.																						
1	<i>J. Wilson</i>	5/21/13 0900		<i>J. Oberle</i>	5/21/13 0928																								
2																													
3																													
Cooler Temperature on Receipt <i>12.2 °C</i>															Custody Seal Y or <i>N</i>					Received on Ice Y or <i>N</i>					Samples Intact Y or <i>N</i>				

**Sample Condition  
Upon Receipt****Client Name:***PACE KS***Project #:****WO# : 10229945**

Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

**Tracking Number:***SSSZ 4796 S748***Custody Seal on Cooler/Box Present?**  Yes  No**Seals Intact?**  Yes  No**Optional:** Proj. Due Date: Proj. Name: \_\_\_\_\_**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_**Temp Blank?**  Yes  NoThermom. Used:  B88A912167504  80512447  72337080 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begunCooler Temp Read (°C): *12.0*Cooler Temp Corrected (°C): *12.2*Biological Tissue Frozen?  Yes  No

Temp should be above freezing to 6°C

Correction Factor: *+0 -2*Date and Initials of Person Examining Contents: *JR S/24/13*

Comments: \_\_\_\_\_

Chain of Custody Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <i>WT</i>				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):				

**CLIENT NOTIFICATION/RESOLUTION**Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_Project Manager Review: *Karen Xiong*Date: *5/24/13*

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Sample Condition Upon Receipt  
ESI Tech Spec Client

WO# : 60145450



60145450

Client Name: Be Anderson

Courier: Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

1E733W8722100604701

Tracking #: 0514/0443/0505/0478/0489 Pace Shipping Label Used? Yes  No

Optional

Proj Due Date:

Proj Name:

Custody Seal on Cooler/Box Present: Yes  No  Seals intact: Yes  No

Packing Material: Bubble Wrap  Bubble Bags  Foam  None  Other

Thermometer Used: T-112 / T-194 Type of Ice: Wet Blue None  Samples received on ice, cooling process has begun.

Cooler Temperature: 4.8 / 2.6 / 1.6 / 2.8 / 3.2 / 0.8

(circle one)

Date and initials of person examining contents: *dw 5/24/13*

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Filtered volume received for dissolved tests?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Includes date/time/ID/analyses	Matrix: <i>WT</i>	13.	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.	
Exceptions: VOA, coliform, <i>TOC</i> , O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed	Lot # of added preservative
Trip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Pace Trip Blank lot # (if purchased):		15.	
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
		16.	
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Temp Log: Record start and finish times when unpacking cooler, if >20 min, recheck sample temps.

Start: 1226 Start: 1150

End: 1246 End: 1205

Temp: 4.4° Temp: 3.8

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: *mw fm HML* Date: *5/24/13*



977 West 2100 South  
Salt Lake City, UT 84119  
(801) 972-6222  
FAX (801) 972-6235

Client: BP  
Project: May 2013 Rico Water Sampling  
AECI Contact: Mark DeFriez (801) 234-9583

Lab Name: Pace Analytical Services  
Lab Contact: Heather Wilson, (913) 563-1407  
Lab Address: 9608 Loiret Blvd.  
Lenexa, KS 66219

## CHAIN OF CUSTODY RECORD

COC#  
Page 1 of 1

QC: (circle one)  
I II III IV

60145450

Matrix	No. of Containers	Analysis Requested								Matrix Codes (W) Water (S) Soil (L) Liquid	Comments
		Total Metals / Hardness / Silica	Potentially Dissolved Metals	Dissolved Metals	Alkalinity / TDS / TSS / Sulfate / Chloride	Cyanide	Salinity	Total Organic Carbon / Nitrate	Sulfide		

Field Location	Field Sample ID Number	Date	Time	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
EB-1	EB-1_20130522	5/22/2013	10:45 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
EB-2	EB-2_20130522	5/22/2013	10:52 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
MW-3 DEEP	MW-3 DEEP_20130522	5/22/2013	11:37 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
MW-103	MW-103_20130522	5/22/2013	12:22 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
MW-104	MW-104_20130522	5/22/2013	1:09 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
GW-1	GW-1_20130522	5/22/2013	10:32 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
GW-4	GW-4_20130522	5/22/2013	11:30 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-6	DR-6_20130522	5/22/2013	3:21 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
FB-LAB	FB-LAB_20130522	5/22/2013	3:38 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-10	DR-10_20130522	5/22/2013	3:23 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
MW-2 DEEP	MW-2 DEEP_20130522	5/22/2013	12:10 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
FB-FIELD	FB-FIELD_20130522	5/22/2013	3:36 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
AT-2	AT-2_20130522	5/22/2013	1:55 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
CHV-101S	CHV-101S_20130522	5/22/2013	2:50 PM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
GW-3	GW-3_20130522	5/22/2013	10:15 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-5	DR-5_20130523	5/23/2013	10:17 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-4	DR-4_20130523	5/23/2013	10:31 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-7	DR-7_20130523	5/23/2013	10:00 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-G	DR-G_20130523	5/23/2013	9:05 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-2	DR-2_20130523	5/23/2013	10:10 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-4-SW	DR-4-SW_20130523	5/23/2013	9:30 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-11	DR-11_20130523	5/23/2013	10:14 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)
DR-12	DR-12_20130523	5/23/2013	10:36 AM	W	8	X X X X X X X X	X X X X X X X X	X X X X X X X X	X X X X X X X X	EB20 EB30 Atas 2(B32N) "B3F 15 2032" B3012 (B)

Relinquished By: signature	Date	Time	Received By: signature	Time	Special Instructions
	5/23	12:10		5/24/13 10:15	4.8°C 2.6°C 1.6°C 2.4°C 3.2°C 0.8°C
Relinquished By: signature					
Relinquished By: signature					
Relinquished By: signature					
Relinquished By: signature					

## Chain of Custody



Workorder: 60145450

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/24/2013 Results Requested By: 6/10/2013

Report To		Subcontract To					Requested Analysis										
		Pace Analytical Billings MT 602 S 25th Street Billings, MT, MT 591014549 Phone (406) 254-7226															
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					Salinity						
						none											
1	EB-1_20130522	PS	5/22/2013 10:45	60145450001	Water	1					X						
2	EB-2_20130522	PS	5/22/2013 10:52	60145450002	Water	1					X						
3	MW-3 DEEP_20130522	PS	5/22/2013 11:37	60145450003	Water	1					X						
4	MW-103_20130522	PS	5/22/2013 12:22	60145450004	Water	1					X						
5	MW-104_20130522	PS	5/22/2013 13:09	60145450005	Water	1					X						
6	GW-1_20130522	PS	5/22/2013 10:32	60145450006	Water	1					X						
7	GW-4_20130522	PS	5/22/2013 11:30	60145450007	Water	1					X						
8	DR-6_20130522	PS	5/22/2013 15:21	60145450008	Water	1					X						
9	FB-LAB_20130522	PS	5/22/2013 15:38	60145450009	Water	1					X						
10	DR-10_20130522	PS	5/22/2013 15:23	60145450010	Water	1					X						
11	MW-2 DEEP_20130522	PS	5/22/2013 12:10	60145450011	Water	1					X						
12	FB-FIELD_20130522	PS	5/22/2013 15:36	60145450012	Water	1					X						
13	AT-2_20130522	PS	5/22/2013 13:55	60145450013	Water	1					X						
14	CHV-101S_20130522	PS	5/22/2013 14:50	60145450014	Water	1					X						
15	GW-3_20130522	PS	5/22/2013 10:15	60145450015	Water	1					X						
16	DR-5_20130523	PS	5/23/2013 10:17	60145450016	Water	1					X						
17	DR-4_20130523	PS	5/23/2013 10:31	60145450017	Water	1					X						
18	DR-7_20130523	PS	5/23/2013 10:00	60145450018	Water	1					X						
19	DR-G_20130523	PS	5/23/2013 09:05	60145450019	Water	1					X						

# Chain of Custody



Workorder: 60145450

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/24/2013 Results Requested By: 6/10/2013

Report To		Subcontract To		Requested Analysis																	
Heather Wilson Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665 Fax (913)599-1759		Pace Analytical Billings MT 602 S 25th Street Billings, MT, MT 591014549 Phone (406) 254-7226																			
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers						Salinity									
						none															
20	DR-2_20130523	PS	5/23/2013 10:10	60145450020	Water	1					X										020
21	DR-4-SW_20130523	PS	5/23/2013 09:30	60145450021	Water	1					X										021
22	DR-11_20130523	PS	5/23/2013 10:14	60145450022	Water	1					X										022
23	DR-12_20130523	PS	5/23/2013 10:36	60145450023	Water	1					X										023
24																					
Comments																					
Transfers	Released By		Date/Time	Received By			Date/Time	No J flags													
1			5/26/13 1700																		
2			5/29/13 1200	Norma C Hanbella/Paco			5/29/13 1200														
3																					
Cooler Temperature on Receipt 5.8 °C				Custody Seal <input checked="" type="checkbox"/> Y or N			Received on Ice <input checked="" type="checkbox"/> Y or N			Samples Intact <input checked="" type="checkbox"/> Y or N											



Document Name:  
**Sample Condition Upon Receipt Form**

Document Revised: 14Nov2012  
Page 1 of 1  
Issuing Authority:  
Pace Montana Quality Office

**Sample Condition  
Upon Receipt**

**Client Name:**

*Pace KS*

**Project #:**

**WO# : 10230268**

Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: *5550 47965418*



Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Optional: Proj. Due Date: Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_ Temp Blank?  Yes  No

Thermometer Used:  1383045  135  NA Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temp Read: *5.8*

Date and Initials of Person Examining Contents: *AC 1 5/29/10*

Cooler Temp Corrected: *5.8*

Biological Tissue Frozen?  Yes  No

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and Signature on COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <i>H2O</i>				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Initial when completed: _____ Lot # of added preservative: _____
Samples checked for dechlorination?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	15.
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):				

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: *[Signature]*

Date: *5-28-13*

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

# Chain of Custody

1/29  
1/32  
5/29/13  
10

10236265



Workorder: 60145450

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/24/2013 Results Requested By: 6/10/2013

Report To		Subcontract To					Requested Analysis									
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					200.8 Total Metal + Hardness + Silica	200.8 Dissolved Metals	245.1 Total Mercury	245.1 Dissolved Mercury	LAB USE ONLY	
						HNO3										
1	EB-1_20130522	PS	5/22/2013 10:45	60145450001	Water	2					X	X	X	X		001
2	EB-2_20130522	PS	5/22/2013 10:52	60145450002	Water	2					X	X	X	X		002
3	MW-3 DEEP_20130522	PS	5/22/2013 11:37	60145450003	Water	2					X	X	X	X		003
4	MW-103_20130522	PS	5/22/2013 12:22	60145450004	Water	2					X	X	X	X		004
5	MW-104_20130522	PS	5/22/2013 13:09	60145450005	Water	2					X	X	X	X		005
6	GW-1_20130522	PS	5/22/2013 10:32	60145450006	Water	2					X	X	X	X		006
7	GW-4_20130522	PS	5/22/2013 11:30	60145450007	Water	2					X	X	X	X		007
8	DR-6_20130522	PS	5/22/2013 15:21	60145450008	Water	2					X	X	X	X		008
9	FB-LAB_20130522	PS	5/22/2013 15:38	60145450009	Water	2					X	X	X	X		009
10	DR-10_20130522	PS	5/22/2013 15:23	60145450010	Water	2					X	X	X	X		010
11	MW-2 DEEP_20130522	PS	5/22/2013 12:10	60145450011	Water	2					X	X	X	X		011
12	FB-FIELD_20130522	PS	5/22/2013 15:36	60145450012	Water	2					X	X	X	X		012
13	AT-2_20130522	PS	5/22/2013 13:55	60145450013	Water	2					X	X	X	X		013
14	CHV-101S_20130522	PS	5/22/2013 14:50	60145450014	Water	2					X	X	X	X		014
15	GW-3_20130522	PS	5/22/2013 10:15	60145450015	Water	2					X	X	X	X		015
16	DR-5_20130523	PS	5/23/2013 10:17	60145450016	Water	2					X	X	X	X		016
17	DR-4_20130523	PS	5/23/2013 10:31	60145450017	Water	2					X	X	X	X		017
18	DR-7_20130523	PS	5/23/2013 10:00	60145450018	Water	2					X	X	X	X		018
19	DR-G_20130523	PS	5/23/2013 09:05	60145450019	Water	2					X	X	X	X		019

# Chain of Custody

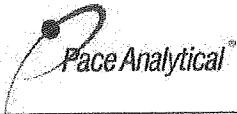


Workorder: 60145450

Workorder Name: MAY 2013 RICO WATER SAMPLING

Owner Received Date: 5/24/2013 Results Requested By: 6/10/2013

Report To		Subcontract To				Requested Analysis																					
Heather Wilson Pace Analytical Services, Inc. 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665 Fax (913)599-1759		Pace Analytical Minnesota 1700 Elm Street Suite 200 Minneapolis, MN 55414 Phone (612)607-1700																									
Preserved Containers																											
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	H	N	N	N	N	N	N	N	N	200.8 Total Metal + Hardness + Silica	200.8 Dissolved Metals	245.1 Total Mercury	245.1 Dissolved Mercury									
20	DR-2_20130523	PS	5/23/2013 10:10	60145450020	Water	2						X	X	X	X					LAB USE ONLY							
21	DR-4-SW_20130523	PS	5/23/2013 09:30	60145450021	Water	2						X	X	X	X					020							
22	DR-11_20130523	PS	5/23/2013 10:14	60145450022	Water	2						X	X	X	X					021							
23	DR-12_20130523	PS	5/23/2013 10:36	60145450023	Water	2						X	X	X	X					022							
24																			023								
												Comments															
Transfers	Released By		Date/Time	Received By			Date/Time		Use Profile 26985. No J flags.																		
1			5/23/13 10:00	Ryan Thibault / PACE			5/23/13 9:50																				
2																											
3																											
Cooler Temperature on Receipt <u>16.8 °C</u>				Custody Seal <input checked="" type="checkbox"/> or N		Received on Ice <input checked="" type="checkbox"/> or N		Samples Intact <input checked="" type="checkbox"/> or N																			

	Document Name: <b>Sample Condition Upon Receipt Form</b>	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: <b>F-MN-L-213-rev.06</b>	Issuing Authority: Pace Minnesota Quality Office

Sample Condition  
Upon Receipt

Client Name:

Project #:

WO# : 10230265

Courier:  FedEx  UPS  USPS  Client  
 Commercial  Pace  Other: \_\_\_\_\_

Tracking Number: 555247965430



Custody Seal on Cooler/Box Present?  Yes  No

Seals Intact?  Yes  No

Optional: Proj. Due Date: Proj. Name:

Packing Material:  Bubble Wrap  Bubble Bags  None  Other: \_\_\_\_\_

Temp Blank?  Yes  No

Thermom. Used:  B88A912167504  80512447  72337080 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temp Read (°C): 16.9  
Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 16.8  
Correction Factor: -1

Biological Tissue Frozen?  Yes  No

Date and Initials of Person Examining Contents: 5/29/13 / RT  
Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	13. <input checked="" type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl<2; NaOH>12)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Sample # 1-23 2/2
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		Initial when completed: RT
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	Lot # of added preservative:
Trip Blank Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):				

**CLIENT NOTIFICATION/RESOLUTION**

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review: Karen Xiong

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Date: 5/30/13

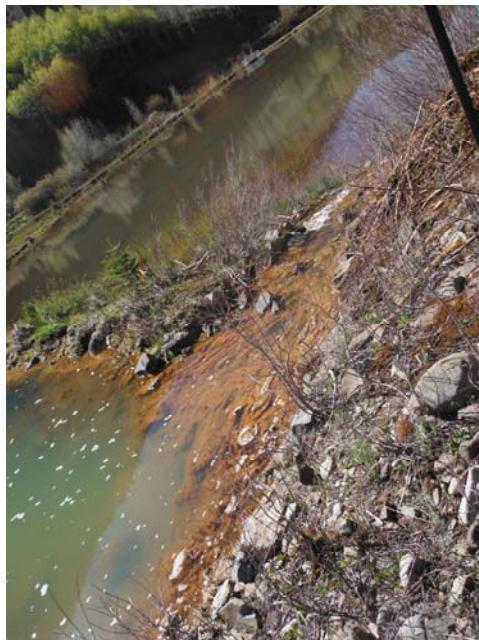
## **Appendix G**

### **Field Photos**

May 2013 Field Photos



Cross Section at Station DR-1



Cross Section at Station DR-5



Cross Section at Station DR-2



Cross Section at Station DR-7

May 2013 Field Photos



**Cross Section at Station DR-4-SW**



**Cross Section at Station DR-G**

**Appendix H**  
**Field Log Book Records**

# Rico Water Sampling: Sampling Event Main Checklist

May 2013

Check off each item as their corresponding forms are completed. An item is NOT to be checked off until its corresponding form is completed in full. If a water sample cannot be completed, its sampling form must still be completed, noting reasons for problems, and it still must be checked off on this list.

## Surface Water Samples

### Grab Samples

- DR-1 S-21-13
- DR-2 S/23/13
- DR-3
- DR-4 S/23/13
- DR-5 S/23/13
- DR-6 S/22/13
- DR-7 S/23/13
- DR-4-SW S/23/13
- DR-G S/23/13

### Composite Samples

- DR-1 COMPOSITE
- DR-2 COMPOSITE
- DR-7 COMPOSITE
- DR-4-SW COMPOSITE

## Groundwater Samples

- GW-1 S/22/13
- GW-3 S/22/13\*
- GW-4 S/22/13-13
- GW-5 S-21-13
- GW-6 S-21-13
- GW-7
- EB-1 S/22/13
- EB-2 S/22/13
- MW-101
- MW-102
- MW-103 S/22/13
- MW-104 S/22/13
- MW-202 S/22/13\*
- MW-203
- MW-204
- P13-102
- P13-103
- MW-1 DEEP
- MW-1 SHALLOW
- MW-2 DEEP S/22/13
- MW-2 SHALLOW S/22/13\*
- MW-3 DEEP S/22/13

## Groundwater Samples (cont.)

- MW-3 SHALLOW
- MW-4 DEEP
- MW-4 SHALLOW
- MW-5 DEEP
- MW-5 SHALLOW
- MW-6 DEEP
- MW-6 SHALLOW

S/22/13\*

S-21-13  
S-21-13

## Other Samples

- AT-2 S/22/13

- PI
- filters
- surgical tube
- gloves
- packaging

## Quality Control Samples

### Blind Duplicates

- DR-8
- DR-9
- DR-10 S/22/13
- DR-11 S/23/13
- DR-12 S/23/13

### Field Blanks

- FB-LAB S/22/13
- FB-FIELD S/22/13

## Flowrate Measurements

- DR-1
- DR-2
- DR-7
- DR-4-SW
- DR-G
- DR-1A
- DR-2A
- DR-3A

## Additional Tasks

- Pond inspection completed
- Pond water levels measured

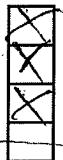
BAH-01 S-21-13

CHV-101 S S/22/13

Rico Water Sampling Form: Calibration Information

Name of instrument: Hanna HI 9828

Perform calibrations in order listed below. Check off if calibration is successful:



Electrical Conductivity

pH

Dissolved Oxygen

ORP

Calibration Notes:

Calibrated correctly all parameters

# Rico Water Sampling Form: *Station Information*

Surface Water     Groundwater     Other

Sample Location: **DR-1**

Date(s) of Sample Collection: **5/21/13**

Time(s) of Sample Collection: **9:45**

Sampler's Identity: **M. Carpenter, T. B.**

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
8.86	132	7.95	2.22	-118

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
X	DR-1_201305	21	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
X	DR-1_201305	21	Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
X	DR-1_201305	21	Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
X	DR-1_201305	21	Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
X	DR-1_201305	21	Salinity 250 mL / HDPE / None
X	DR-1_201305	21	Cyanide 250 mL / HDPE / NaOH (GREEN)
X	DR-1_201305	21	Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
4	DR-1_201305	21	Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

Picture taken of cross section?

By whom?

TB

Yes

\*Email photo to mdefriez@andersoneng.com

# Rico Water Sampling Form: *Station Information*

Surface Water

Groundwater

Other

Sample Location:

DR-2

Sampling completed at this location

(Do not check box until ALL items have been completed)

Date(s) of Sample Collection:

5/23/13

Time(s) of Sample Collection:

10:10

Sampler's Identity:

ML/TB

Picture taken of cross section?

Yes

By whom?

ML/TB

\*Email photo to mdefriez@andersoneng.com

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
7.72	129	9.18	3.63	29 -24.4

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	DR-2_201305	23	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
/	DR-2_201305		Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
/	DR-2_201305		Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
/	DR-2_201305		Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
/	DR-2_201305		Salinity 250 mL / HDPE / None
/	DR-2_201305		Cyanide 250 mL / HDPE / NaOH (GREEN)
/	DR-2_201305		Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	DR-2_201305		Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: **DR-3**

Date(s) of Sample Collection:	5/15/13
Time(s) of Sample Collection:	11:10
Sampler's Identity:	M. Capone, T. Thacker

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Manual Flume Water Depth Measurement, ft
7.10	886	8.21	21.92	-44.5	0.56 @ 1:00pm 11 5/18/13

Data downloaded from transducer?

Yes     No

Has transducer been cleaned and recalibrated?

Yes     No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

X	DR-3_201305	15	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
X	DR-3_201305	15	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
X	DR-3_201305	15	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
X	DR-3_201305	15	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
X	DR-3_201305	15	Salinity	250 mL / HDPE / None
X	DR-3_201305	15	Cyanide	250 mL / HDPE / NaOH (GREEN)
X	DR-3_201305	15	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	DR-3_201305	15	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

## Rico Water Sampling Form: *Station Information*

Surface Water     Groundwater     Other

Sample Location: DR-4  
 Date(s) of Sample Collection: ~~5/21/13~~ 5/28/13  
 Time(s) of Sample Collection: 10:31  
 Sampler's Identity: DR - 4 - 20130528

Sampling completed at this location

(Do not check box until ALL items have been completed)

### FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
8.25	1499	7.05	16.34	-17.2

Discharge Pipe Flowrates			
Upper Pipe		Lower Pipe	
Depth	Velocity	Depth	Velocity
0.3	4.83	0	0

\*If measuring pipe discharge by other means, describe in "Notes" section

### SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

✓	DR-4_201305	73	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
✓	DR-4_201305		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
✓	DR-4_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
✓	DR-4_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
✓	DR-4_201305		Salinity	250 mL / HDPE / None
✓	DR-4_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
✓	DR-4_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
✓	DR-4_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: *Station Information*

Surface Water     Groundwater     Other

Sample Location:	DR-5
Date(s) of Sample Collection:	5/23/13
Time(s) of Sample Collection:	10:17
Sampler's Identity:	MCTB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

Benchmark Elevation:	5 07
Spillway Water Elevation:	7 82
East to West	
West to East	
Velocity (ft/sec)	Depth (ft)
0	0.2
0.3	0.3
0.5	0.4

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
7.12	1545	6.13	11.90	-17.8

Picture taken of cross section?

By whom? TB

\*Email photo to mdefriez@andersoneng.com

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle      Analysis      Bottle size/Type/Preservative

/	DR-5_201305	73	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	DR-5_201305	1	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	DR-5_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	DR-5_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	DR-5_201305		Salinity	250 mL / HDPE / None
/	DR-5_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
/	DR-5_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	DR-5_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: DR-6  
 Date(s) of Sample Collection: 5-22-13  
 Time(s) of Sample Collection: 3:21  
 Sampler's Identity: TB

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Manual Flume Water Depth Measurement, ft
7.24	1584	7.79	16.49	-24.0	0.39'

Data downloaded from transducer?

Yes     No

Has transducer been cleaned and recalibrated?

Yes     No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	DR-6_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	DR-6_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	DR-6_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	DR-6_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	DR-6_201305	Salinity	250 mL / HDPE / None
/	DR-6_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
/	DR-6_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	DR-6_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water       Groundwater       Other

Sample Location: DR-7

Date(s) of Sample Collection: 5/23/13

Time(s) of Sample Collection: 10:00

Sampler's Identity: MC/MB

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
8.59	177	9.35	3.53	-75.5

Picture taken of cross section?

Yes

By whom?

TB

\*Email photo to mdefriez@andersoneng.com

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	DR-7_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	DR-7_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	DR-7_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	DR-7_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	DR-7_201305	Salinity	250 mL / HDPE / None
	DR-7_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	DR-7_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	DR-7_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: DR-4-SW

Date(s) of Sample Collection: 5/23/13

Time(s) of Sample Collection: 9:30

Sampler's Identity: MC/TB

Sampling completed at this location

(Do not check box until ALL items have been completed)

Picture taken of cross section?  Yes

By whom? TB

\*Email photo to mdefriez@andersoneng.com

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
6.90	298	8.33	39.2	-5.7

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	DR-4-SW_201305	23	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
	DR-4-SW_201305		Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
	DR-4-SW_201305		Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
	DR-4-SW_201305		Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
	DR-4-SW_201305		Salinity 250 mL / HDPE / None
	DR-4-SW_201305		Cyanide 250 mL / HDPE / NaOH (GREEN)
	DR-4-SW_201305		Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	DR-4-SW_201305		Total Organic Carbon, Nitrate 250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

 Surface Water

 Groundwater

 Other

Sample Location:

DR-G

Date(s) of Sample Collection:

5/23/13

Time(s) of Sample Collection:

9:05

Sampler's Identity:

MCL/TB

 Sampling completed at this location 

(Do not check box until **ALL** items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
7.03	144	10.10	24.7	-52.7

Picture taken of cross section?

 Yes

By whom?

TB

 \*Email photo to [mdefriez@andersoneng.com](mailto:mdefriez@andersoneng.com)

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	DR-G_201305	23 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	DR-G_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	DR-G_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	DR-G_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	DR-G_201305	Salinity	250 mL / HDPE / None
/	DR-G_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
/	DR-G_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	DR-G_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location:	DR-8
Date(s) of Sample Collection:	6/15/13
Time(s) of Sample Collection:	11:09
Sampler's Identity:	Meredith Capener, Todd Thacker
*Duplicate sample of:	DR-3

Sampling completed at this location

(Do not check box until **ALL** items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
7.02	823	3.71	21.27	-42.8

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

X	DR-8_201305	15	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
X	DR-8_201305	15	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
X	DR-8_201305	15	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
X	DR-8_201305	15	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
X	DR-8_201305	15	Salinity	250 mL / HDPE / None
X	DR-8_201305	15	Cyanide	250 mL / HDPE / NaOH (GREEN)
X	DR-8_201305	15	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	DR-8_201305	15	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

### Notes:

\*This sample is a Blind Duplicate Sample. Collect one blind duplicate sample for every 10 samples collected.

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location:	DR-9
Date(s) of Sample Collection:	5/21/13
Time(s) of Sample Collection:	9:47
Sampler's Identity:	MCH/TB
*Duplicate sample of:	PR-1

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, µS/cm	DO, ppm	Temp, °C	ORP, mV
8.47	132	7.69	23.7	-108.4

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

<input checked="" type="checkbox"/>	DR-9_201305	21	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-9_201305	21	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-9_201305	21	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-9_201305	21	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
<input checked="" type="checkbox"/>	DR-9_201305	21	Salinity	250 mL / HDPE / None
<input checked="" type="checkbox"/>	DR-9_201305	21	Cyanide	250 mL / HDPE / NaOH (GREEN)
<input checked="" type="checkbox"/>	DR-9_201305	21	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
<input checked="" type="checkbox"/>	DR-9_201305	21	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\*This sample is a Blind Duplicate Sample. Collect one blind duplicate sample for every 10 samples collected.

# Rico Water Sampling Form: *Station Information*

Surface Water     Groundwater     Other

Sample Location:	DR-10
Date(s) of Sample Collection:	5/22/13
Time(s) of Sample Collection:	3:23
Sampler's Identity:	DR-10 - 2013 DS22
*Duplicate sample of:	DR-6

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, µS/cm	DO, ppm	Temp, °C	ORP, mV
7.14	1585	7.78	16.54	-15.6

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

DR-10_201305	22	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
DR-10_201305		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
DR-10_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
DR-10_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
DR-10_201305		Salinity	250 mL / HDPE / None
DR-10_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
DR-10_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
DR-10_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\*This sample is a Blind Duplicate Sample. Collect one blind duplicate sample for every 10 samples collected.

## Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: **DR-11**

Date(s) of Sample Collection: **5/23/13**

Time(s) of Sample Collection: **10:14**

Sampler's Identity: **M/LTB**

\*Duplicate sample of: **DP-2**

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

### FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
7.74	120	9.08	3.58	-27.6

### SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle    Analysis    Bottle size/Type/Preservative

/	DR-11_201305	23	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	DR-11_201305		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	DR-11_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	DR-11_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	DR-11_201305		Salinity	250 mL / HDPE / None
/	DR-11_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
/	DR-11_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	DR-11_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\*This sample is a Blind Duplicate Sample. Collect one blind duplicate sample for every 10 samples collected.

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: **DR-12**

Date(s) of Sample Collection:

*8/24/13*

*5/23*

Time(s) of Sample Collection:

*10:36*

Sampler's Identity:

*DR-12 - 20130524*

\*Duplicate sample of:

**DR-4**

Sampling completed at this location

(Do not check box until **ALL** items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, µS/cm	DO, ppm	Temp, °C	ORP, mV
7.95	1498	7.17	15.36	-17.0

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
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<input checked="" type="checkbox"/>	DR-12_201305	<i>23</i>	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-12_201305	<i>1</i>	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-12_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	DR-12_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
<input checked="" type="checkbox"/>	DR-12_201305		Salinity	250 mL / HDPE / None
<input checked="" type="checkbox"/>	DR-12_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
<input checked="" type="checkbox"/>	DR-12_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
<input checked="" type="checkbox"/>	DR-12_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

\*This sample is a Blind Duplicate Sample. Collect one blind duplicate sample for every 10 samples collected.

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: **FB-LAB**

Date of Sample Collection:	<b>5-22-13</b>
Time of Sample Collection:	<b>3:38</b>
Sampler's Identity:	<b>F-B - LAB - 20130522</b>

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
7.69	3	6.55	16.49	-21.1

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	FB-LAB_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	FB-LAB_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	FB-LAB_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	FB-LAB_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	FB-LAB_201305	Salinity	250 mL / HDPE / None
	FB-LAB_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	FB-LAB_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	FB-LAB_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

### Notes:

\*Sample is a Field Blank. Run distilled water through all standard sampling procedures

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location: **FB-FIELD**

Date of Sample Collection:	5/22/13
Time of Sample Collection:	3:36
Sampler's Identity:	FB-Field - 20130522

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
7.96	4	4.65	16.24	-45.1

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	FB-FIELD_201305	28	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
/	FB-FIELD_201305		Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
/	FB-FIELD_201305		Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
/	FB-FIELD_201305		Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
/	FB-FIELD_201305		Salinity 250 mL / HDPE / None
/	FB-FIELD_201305		Cyanide 250 mL / HDPE / NaOH (GREEN)
/	FB-FIELD_201305		Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	FB-FIELD_201305		Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\*Sample is a Field Blank. Run distilled water through all standard sampling procedures

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other  
 Sample Location: **DR-1 COMPOSITE**  
 Date(s) of Sample Collection: **5/23/13**  
 Time(s) of Sample Collection:  
 Sampler's Identity: **MCHB**

Sampling completed at this location

(Do not check box until ALL items have been completed)

Collected:

East to West  
 West to East

## FIELD PARAMETERS / MEASUREMENTS

Compartment Number	Compartment Width, ft	EC, $\mu\text{S}/\text{cm}$	ORP, mV	DO, ppm	pH	Temp, $^{\circ}\text{C}$
Total Composite	Total Width*:					

\*Width here must match width on corresponding flow measurement sheet from Stream Flow Measurements Form

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

Field Sample ID on Bottle

Analysis

Bottle size/Type/Preservative

DR-1 COMPOSITE_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
DR-1 COMPOSITE_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
DR-1 COMPOSITE_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
DR-1 COMPOSITE_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
DR-1 COMPOSITE_201305	Salinity	250 mL / HDPE / None
DR-1 COMPOSITE_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
DR-1 COMPOSITE_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
DR-1 COMPOSITE_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

Notes:

\*Collect composite sample, grab sample, and flow measurements at the same time (not on different days).

could not collect sample-

unable to access river due to high flow + depth of water  
(unsafe access conditions)

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other  
 Sample Location: **DR-2 COMPOSITE**  
 Date(s) of Sample Collection: **5/23/13**  
 Time(s) of Sample Collection:  
 Sampler's Identity: **MC LTB**

Sampling completed at this location

(Do not check box until ALL items have been completed)

Collected:  
 East to West  
 West to East

## FIELD PARAMETERS / MEASUREMENTS

Compartment Number	Compartment Width, ft	EC, $\mu\text{S}/\text{cm}$	ORP, mV	DO, ppm	pH	Temp, $^{\circ}\text{C}$
Total Composite	Total Width*:					

\*Width here must match width on corresponding flow measurement sheet from Stream Flow Measurements Form

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
DR-2 COMPOSITE_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
DR-2 COMPOSITE_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
DR-2 COMPOSITE_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
DR-2 COMPOSITE_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
DR-2 COMPOSITE_201305	Salinity	250 mL / HDPE / None
DR-2 COMPOSITE_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
DR-2 COMPOSITE_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
DR-2 COMPOSITE_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

Notes:

\*Collect composite sample, grab sample, and flow measurements at the same time (not on different days).

could not collect sample -

unable to access river due to high flow & depth of water  
 (unsafe access conditions)

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

**DR-7 COMPOSITE**

Sampling completed at this location

(Do not check box until **ALL** items  
have been completed)

Date(s) of Sample Collection:

5/23/13

Time(s) of Sample Collection:

MLTBS

Sampler's Identity:

Collected:

East to West  
 West to East

## FIELD PARAMETERS / MEASUREMENTS

Compartment Number	Compartment Width, ft	EC, $\mu\text{S}/\text{cm}$	ORP, mV	DO, ppm	pH	Temp, $^{\circ}\text{C}$
Total Composite	Total Width*:					

\*Width here must match width on corresponding flow measurement sheet from Stream Flow Measurements Form

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
DR-7 COMPOSITE_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
DR-7 COMPOSITE_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
DR-7 COMPOSITE_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
DR-7 COMPOSITE_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
DR-7 COMPOSITE_201305	Salinity	250 mL / HDPE / None
DR-7 COMPOSITE_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
DR-7 COMPOSITE_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
DR-7 COMPOSITE_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

\*Collect composite sample, grab sample, and flow measurements at the same time (not on different days).

Could not collect sample due to unsafe access conditions  
 (high velocity + depth of river)

# Rico Water Sampling Form: *Station Information*

Surface Water

Groundwater

Other

Sample Location:

**DR-4-SW COMPOSITE**

Sampling completed at this location

(Do not check box until ALL items have been completed)

Date(s) of Sample Collection:

5/23/13

Time(s) of Sample Collection:

Sampler's Identity:

MC ITB

Collected:

East to West

West to East

## FIELD PARAMETERS / MEASUREMENTS

Compartment Number	Compartment Width, ft	EC, $\mu\text{S}/\text{cm}$	ORP, mV	DO, ppm	pH	Temp, $^{\circ}\text{C}$
Total Composite	Total Width*:					

\*Width here must match width on corresponding flow measurement sheet from Stream Flow Measurements Form

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

Field Sample ID on Bottle

Analysis

Bottle size/Type/Preservative

DR-4-SW COMPOSITE_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
DR-4-SW COMPOSITE_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
DR-4-SW COMPOSITE_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
DR-4-SW COMPOSITE_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
DR-4-SW COMPOSITE_201305	Salinity	250 mL / HDPE / None
DR-4-SW COMPOSITE_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
DR-4-SW COMPOSITE_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
DR-4-SW COMPOSITE_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)

Notes:

\*Collect composite sample, grab sample, and flow measurements at the same time (not on different days).

could not collect sample due to unsafe access conditions  
(high velocity & depth of water)

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

GW-1

Date(s) of Sample Collection:

9/22/13

Time(s) of Sample Collection:

10:32

Sampler's Identity:

MCL/TB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 0.5 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
1	10:25	4.22 1.75	7.54	2606	—	7.05	—	1.00	1.53 4.58
2	10:27	3.50	7.48	2605	—	5.27	—	1.25	1.48 4.44
3	10:30	6.25	7.46	2604	—	5.02	—	1.50	1.44 4.31
Collected Sample Parameters:								0.25	1.66 4.97
								0.50	1.61 4.84
								0.75	1.57 4.71
								1.00	1.53 4.58
								1.25	1.48 4.44
								1.50	1.44 4.31
								1.75	1.39 4.18
								2.00	1.35 4.05
								2.25	1.31 3.92
								2.50	1.26 3.79
								2.75	1.22 3.66
								3.00	1.18 3.53
								3.25	1.13 3.40
								3.50	1.09 3.27
								3.75	1.05 3.14

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours??  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	GW-1_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	GW-1_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	GW-1_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	GW-1_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	GW-1_201305	Salinity	250 mL / HDPE / None
/	GW-1_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
/	GW-1_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	GW-1_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

GW-3

Date(s) of Sample Collection:

6/21/13

5/22/13

Time(s) of Sample Collection:

9:33

10:15

Sampler's Identity:

MCL/TB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 12 73 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
								1	3
1	9:28	0.41	6.35	1041	—	9.8	—	5.75	1.66 4.99
2					—		—	6.00	1.62 4.86
3					—		—	6.25	1.58 4.73
								6.50	1.53 4.60
								6.75	1.49 4.47
								7.00	1.45 4.34
								7.25	1.40 4.21
								7.50	1.36 4.08
								7.75	1.32 3.95
								8.00	1.27 3.82
								8.25	1.23 3.69
								8.50	1.19 3.56
								8.75	1.14 3.43
								9.00	1.10 3.29
								9.25	1.05 3.16
								9.50	1.01 3.03

Collected Sample Parameters: 7.94 904 4.41 0.09 33.5

5/22/13 10:15 am

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
/	GW-3_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	9.75	0.97 2.90
/	GW-3_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	10.00	0.92 2.77
/	GW-3_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.25	0.88 2.64
/	GW-3_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.50	0.84 2.51
/	GW-3_201305	Salinity	250 mL / HDPE / None	10.75	0.79 2.38
/	GW-3_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)	11.00	0.75 2.25
/	GW-3_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.25	0.71 2.12
/	GW-3_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.50	0.66 1.99
				11.75	0.62 1.86
				12.00	0.58 1.73
				12.25	0.53 1.59
				12.50	0.49 1.46
				12.75	0.44 1.33
				13.00	0.40 1.20
				13.25	0.36 1.07
				13.50	0.31 0.94
				13.75	0.27 0.81
				14.00	0.23 0.68
				14.25	0.18 0.55
				14.50	0.14 0.42
				14.75	0.10 0.29
				15.00	0.05 0.16
				15.25	0.01 0.03

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

Purge Dry 5 gal

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

GW-4

Date(s) of Sample Collection:

5/22/13

Time(s) of Sample Collection:

11:30

Sampler's Identity:

MC/TB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 9.99 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Quantity (gal) to Purge X Volumes*		
								1	3	
1	11:11	1.00	6.80	1130	—	6.26	—	6.50	1.51	4.52
2	11:16	2	6.93	1077	—	5.89	—	6.75	1.46	4.39
3	11:21	3	7.01	1054	—	5.50	—	7.00	1.42	4.26
Collected Sample Parameters:		7.03	1063	3.93	4.94	—	—	7.25	1.38	4.13
								7.50	1.33	4.00
								7.75	1.29	3.87
								8.00	1.25	3.74
								8.25	1.20	3.61
								8.50	1.16	3.48
								8.75	1.12	3.35
								9.00	1.07	3.22
								9.25	1.03	3.09
								9.50	0.98	2.95
								9.75	0.94	2.82
								10.00	0.90	2.69
								10.25	0.85	2.56
								10.50	0.81	2.43
								10.75	0.77	2.30
								11.00	0.72	2.17
								11.25	0.68	2.04

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative			
✓	GW-4_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	9.50	0.98	2.95
		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	9.75	0.94	2.82
		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.00	0.90	2.69
		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.25	0.85	2.56
		Salinity	250 mL / HDPE / None	10.50	0.81	2.43
		Cyanide	250 mL / HDPE / NaOH (GREEN)	10.75	0.77	2.30
		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.00	0.72	2.17
		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.25	0.68	2.04

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

GW-5

Date(s) of Sample Collection:

5/21/13

Time(s) of Sample Collection:

10:25

Sampler's Identity:

MC ITB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 20.37 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu$ S/cm	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*
								1    3
1	10:16	1.0	6.86	2704	—	14.33	—	15.00    1.66 4.97
2	10:20	2.0	6.82	2748	—	12.32	—	15.25    1.61 4.84
3	10:22	3.0	6.86	2725	—	11.49	—	15.50    1.57 4.71
Collected Sample Parameters:								15.75    1.53 4.58
								16.00    1.48 4.44
								16.25    1.44 4.31
								16.50    1.39 4.18
								16.75    1.35 4.05
								17.00    1.31 3.92
								17.25    1.26 3.79
								17.50    1.22 3.66
								17.75    1.18 3.53
								18.00    1.13 3.40
								18.25    1.09 3.27
								18.50    1.05 3.14
								18.75    1.00 3.01

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative			
X	GW-5_201305	21 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	19.00	0.96	2.88
	GW-5_201305	21 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	19.25	0.92	2.75
	GW-5_201305	21 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	19.50	0.87	2.61
	GW-5_201305	21 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	19.75	0.83	2.48
	GW-5_201305	21 Salinity	250 mL / HDPE / None	20.00	0.78	2.35
	GW-5_201305	21 Cyanide	250 mL / HDPE / NaOH (GREEN)	20.25	0.74	2.22
	GW-5_201305	21 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	20.50	0.70	2.09
	GW-5_201305	21 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	20.75	0.65	1.96

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: **GW-6**

Date(s) of Sample Collection: **5/21/13**

Time(s) of Sample Collection: **10:57**

Sampler's Identity: **MC/TB**

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: **20.95** ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Quantity (gal) to Purge X Volumes*	Measured Depth to Water (ft)
1	10:40	1.02	6.44	2008	—	11.52	—	1.68	17.25
2	10:47	2.10	6.48	2245	—	14.91	—	1.63	17.50
3	10:55	3.12	6.38	2134	—	10.40	—	1.59	17.75
Collected Sample Parameters:		6.38	2151	0.33	10.11	-70.2		1.54	18.00
								1.50	18.25
								1.46	18.50
								1.41	18.75
								1.37	19.00
								1.33	19.25
								1.28	19.50
								1.24	19.75
								1.20	20.00
								1.15	20.25
								1.11	20.50
								1.07	20.75
								1.02	21.00
								0.98	21.25
								0.93	21.50
								0.89	21.75
								0.85	22.00
								0.80	22.25
								0.76	22.50
								0.72	22.75
								0.67	23.00
								0.63	23.25
								0.59	23.50
								0.54	23.75
								0.50	24.00
								0.45	24.25
								0.41	24.50
								0.37	24.75
								0.32	25.00
								0.28	25.25
								0.24	25.50
								0.19	25.75
								0.15	26.00
								0.11	26.25
								0.06	26.50
								0.02	26.75

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	GW-6_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
/	GW-6_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
/	GW-6_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
/	GW-6_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
/	GW-6_201305	Salinity	250 mL / HDPE / None
/	GW-6_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
/	GW-6_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	GW-6_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: **GW-7**

Date(s) of Sample Collection: **5/15/13**

Time(s) of Sample Collection: **10:50**

Sampler's Identity: **M. Capenon T. Snacken**

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: **22.31** ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	3:50	0.51	10.63	1390	—	14.5	—	15.25	1.76 5.28
2	3:53	01.03	10.547	11164	—	13.6	—	15.50	1.72 5.15
3	3:55	1.02	6.44	1268	—	12.4	—	15.75	1.67 5.01
Collected Sample Parameters:		0.52	9.55	1.20	15.23	-53.4	—	16.00	1.63 4.88
							16.25	1.58	4.75
							16.50	1.54	4.62
							16.75	1.50	4.49
							17.00	1.45	4.36
							17.25	1.41	4.23
							17.50	1.37	4.10
							17.75	1.32	3.97
							18.00	1.28	3.84
							18.25	1.24	3.71
							18.50	1.19	3.58
							18.75	1.15	3.45
							19.00	1.11	3.32

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative			
X	GW-7_201305	15	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	19.25	1.06 3.18
X	GW-7_201305	15	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	19.50	1.02 3.05
X	GW-7_201305	15	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	19.75	0.97 2.92
X	GW-7_201305	15	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	20.00	0.93 2.79
X	GW-7_201305	15	Salinity	250 mL / HDPE / None	20.25	0.89 2.66
X	GW-7_201305	15	Cyanide	250 mL / HDPE / NaOH (GREEN)	20.50	0.84 2.53
X	GW-7_201305	15	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	20.75	0.80 2.40
X	GW-7_201305	15	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H <sub>2</sub> SO <sub>4</sub> (YELLOW)	21.00	0.76 2.27

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: EB-1

Date(s) of Sample Collection: 5/21/13

Time(s) of Sample Collection: 10:45 → 5/22/13

Sampler's Identity: MC TRB

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 21.77 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	Measured Depth to Water (ft)	1	3
1	10:20	1.0	7.01	1060	—	15.5	—	19.00	2.85	8.55	
2				1464	—	—	—	19.25	2.81	8.42	
3				—	—	—	—	19.50	2.76	8.29	

Collected Sample Parameters: 828 216 0.00 10.92 -125.8

6.48

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative	20.00	2.68	8.03
X	EB-1_201305	22 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	20.25	2.63	7.90
/	EB-1_201305	22 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	20.50	2.59	7.77
/	EB-1_201305	22 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	20.75	2.54	7.63
/	EB-1_201305	22 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	21.00	2.50	7.50
/	EB-1_201305	22 Salinity	250 mL / HDPE / None	21.25	2.46	7.37
/	EB-1_201305	22 Cyanide	250 mL / HDPE / NaOH (GREEN)	21.50	2.41	7.24
/	EB-1_201305	22 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	21.75	2.37	7.11
/	EB-1_201305	22 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	22.00	2.33	6.98
				22.25	2.28	6.85
				22.50	2.24	6.72
				22.75	2.20	6.59
				23.00	2.15	6.46
				23.25	2.11	6.33
				23.50	2.07	6.20
				23.75	2.02	6.07
				24.00	1.98	5.94
				24.25	1.93	5.80
				24.50	1.89	5.67
				24.75	1.85	5.54
				25.00	1.80	5.41
				25.25	1.76	5.28
				25.50	1.72	5.15
				25.75	1.67	5.02
				26.00	1.63	4.89
				26.25	1.59	4.76
				26.50	1.54	4.63
				26.75	1.50	4.50
				27.00	1.46	4.37
				27.25	1.41	4.24
				27.50	1.37	4.10
				27.75	1.32	3.97
				28.00	1.28	3.84
				28.25	1.24	3.71
				28.50	1.19	3.58

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: EB-2  
 Date(s) of Sample Collection: 5/24/13  
 Time(s) of Sample Collection: 10:52  
 Sampler's Identity: TB/MG

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 16.39 ft  
 (16.41)

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	11:50	2.0	7.48	37107	—	11.55	—	14.00	2.18 6.54
2					—		—	14.25	2.14 6.41
3					—		—	14.50	2.09 6.27
								14.75	2.05 6.14
								15.00	2.00 6.01
								15.25	1.96 5.88
								15.50	1.92 5.75
								15.75	1.87 5.62
								16.00	1.83 5.49
								16.25	1.79 5.36
								16.50	1.74 5.23
								16.75	1.70 5.10
								17.00	1.66 4.97
								17.25	1.61 4.84
								17.50	1.57 4.71
								17.75	1.53 4.58
								18.00	1.48 4.44
								18.25	1.44 4.31
								18.50	1.39 4.18
								18.75	1.35 4.05
								19.00	1.31 3.92
								19.25	1.26 3.79
								19.50	1.22 3.66
								19.75	1.18 3.53
								20.00	1.13 3.40
								20.25	1.09 3.27
								20.50	1.05 3.14
								20.75	1.00 3.01
								21.00	0.96 2.88
								21.25	0.92 2.75
								21.50	0.87 2.61
								21.75	0.83 2.48
								22.00	0.78 2.35
								22.25	0.74 2.22
								22.50	0.70 2.09
								22.75	0.65 1.96
								23.00	0.61 1.83
								23.25	0.57 1.70
								23.50	0.52 1.57

Collected Sample Parameters: 7.33 3851 0.0 10.67 -10.21

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
X	EB-2_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	18.00	1.48 4.44
		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	18.25	1.44 4.31
		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	18.50	1.39 4.18
		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	18.75	1.35 4.05
		Salinity	250 mL / HDPE / None	19.00	1.31 3.92
		Cyanide	250 mL / HDPE / NaOH (GREEN)	19.25	1.26 3.79
		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	19.50	1.22 3.66
		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	19.75	1.18 3.53

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

MW-101

Date(s) of Sample Collection:

5/15/13

Time(s) of Sample Collection:

10:40

Sampler's Identity:

Merete Capener, Todd Thaeler

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 26.81 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
1	10:15	1.85	6.40	1459	—	15.8	—	23.00	2.55	7.64
2	10:20	3.70	6.54	1369	—	16.0	—	23.25	2.50	7.51
3	10:30	5.55	6.49	1264	—	15.7	—	23.50	2.46	7.38

Collected Sample Parameters:

770 712 0.01 17.09 -72.2

6.69 991 1.11 15.86 -64.4

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative	26.75	1.89	5.68
X	MW-101_201305	15 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	27.00	1.85	5.55
X	MW-101_201305	15 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	27.25	1.81	5.42
X	MW-101_201305	15 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	27.50	1.76	5.29
X	MW-101_201305	15 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	27.75	1.72	5.15
X	MW-101_201305	15 Salinity	250 mL / HDPE / None	28.00	1.67	5.02
X	MW-101_201305	15 Cyanide	250 mL / HDPE / NaOH (GREEN)	28.25	1.63	4.89
X	MW-101_201305	15 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	28.50	1.59	4.76
X	MW-101_201305	15 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	28.75	1.54	4.63

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-102

Date(s) of Sample Collection: 5-15-13

Time(s) of Sample Collection: 16:40

Sampler's Identity: TT / MC

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 23.37 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	15:20	1.3	6.61	1007	—	15.8	—	21.50	1.66 4.99
2	15:30	2.72	6.73	945	—	13.0	—	21.75	1.62 4.86
3	15:39	4.09	6.73	969	—	12.6	—	22.00	1.58 4.73
Collected Sample Parameters:		7.09	772	0.89	17.09	97.1	—	22.25	1.53 4.60
							22.50	1.49 4.47	
							22.75	1.45 4.34	
							23.00	1.40 4.21	
							23.25	1.36 4.08	
							23.50	1.31 3.94	
							23.75	1.27 3.81	
							24.00	1.23 3.68	
							24.25	1.18 3.55	
							24.50	1.14 3.42	
							24.75	1.10 3.29	
							25.00	1.05 3.16	
							25.25	1.01 3.03	
							25.50	0.97 2.90	
							25.75	0.92 2.77	
							26.00	0.88 2.64	
							26.25	0.84 2.51	
							26.50	0.79 2.38	
							26.75	0.75 2.25	
							27.00	0.70 2.11	
							27.25	0.66 1.98	
							27.50	0.62 1.85	
							27.75	0.57 1.72	
							28.00	0.53 1.59	
							28.25	0.49 1.46	
							28.50	0.44 1.33	
							28.75	0.40 1.20	
							29.00	0.36 1.07	
							29.25	0.31 0.94	
							29.50	0.27 0.81	
							29.75	0.23 0.68	
							30.00	0.18 0.55	
							30.25	0.14 0.42	
							30.50	0.09 0.28	
							30.75	0.05 0.15	
							31.00	0.01 0.02	

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
X	MW-102_201305	15 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
X	MW-102_201305	15 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
X	MW-102_201305	15 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
X	MW-102_201305	15 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
X	MW-102_201305	15 Salinity	250 mL / HDPE / None
X	MW-102_201305	15 Cyanide	250 mL / HDPE / NaOH (GREEN)
X	MW-102_201305	15 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	MW-102_201305	15 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: *Station Information*

Surface Water

Groundwater

Other

Sample Location:

MW-103

Date(s) of Sample Collection:

5/22/13

Time(s) of Sample Collection:

12:22

Sampler's Identity:

MJ/TB

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 6.34 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	12:16	2.5	6.95	1725	—	8.53	—	4.00	2.76 8.29
2	12:18	5.0	6.95	1750	—	9.43	—	4.25	2.72 8.16
3	12:20	7.5	6.93	1780	—	9.28	—	3.50	2.85 8.55
Collected Sample Parameters:		6.41	7.00	0.00	8.13	-41.2	3.75	2.81	8.42
Well purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If Yes, did well recover to 80% within 24 hours?** <input type="checkbox"/> Yes <input type="checkbox"/> No		6.00		5.00		2.59 7.77	
								5.25	
								2.50 7.51	
								5.75	
								6.00	
								6.25	
								6.50	
								2.33 6.99	
								6.75	
								2.28 6.85	

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
MW-103_201305	22	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	7.00	2.24 6.72
		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	7.25	2.20 6.59
		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	7.50	2.15 6.46
		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	7.75	2.11 6.33
		Salinity	250 mL / HDPE / None	8.00	2.07 6.20
		Cyanide	250 mL / HDPE / NaOH (GREEN)	8.25	2.02 6.07
		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	8.50	1.98 5.94
		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	8.75	1.94 5.81

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-104  
 Date(s) of Sample Collection: 5/22/13  
 Time(s) of Sample Collection: 1309  
 Sampler's Identity: MW-104-2013052C

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 3.53 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	1251	2.5	8.18	1499	—	11.44	—	1.00	2.94 8.82
2	1257	5.0	7.43	1491	—	11.27	—	1.25	2.89 8.68
3	1306	7.5	7.21	1495	—	10.77	—	1.50	2.85 8.55

Collected Sample Parameters: 7.23 1507 0210 1033 -65.4 0.88

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative	
/ / / / / / / /	MW-104_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	4.00 2.42 7.25
		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	4.25 2.37 7.12
		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	4.50 2.33 6.99
		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	4.75 2.28 6.85
		Salinity	250 mL / HDPE / None	5.00 2.24 6.72
		Cyanide	250 mL / HDPE / NaOH (GREEN)	5.25 2.20 6.59
		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	5.50 2.15 6.46
		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	5.75 2.11 6.33

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location:

MW-202

Date(s) of Sample Collection:

5/22/13

Time(s) of Sample Collection:

1:35

Sampler's Identity:

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: **34.70** ft  
**35.10**

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV
1					—	—	—
2					—	—	—
3					—	—	—
Collected Sample Parameters:							

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours??  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	MW-202_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	MW-202_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	MW-202_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	MW-202_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	MW-202_201305	Salinity	250 mL / HDPE / None
	MW-202_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	MW-202_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	MW-202_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

MW-204

Date(s) of Sample Collection:

5/16/13

Time(s) of Sample Collection:

12:30

Sampler's Identity:

M. Capener, T. Thacker

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 15.49 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
								1	3
1	10:55 am	2.30	6.82	1267	—	17.7	—	11.00	3.09 9.26
2	—	—	—	—	—	—	—	11.25	3.04 9.13
3	—	—	—	—	—	—	—	11.50	3.00 9.00
								11.75	2.96 8.87
								12.00	2.91 8.73
								12.25	2.87 8.60
								12.50	2.82 8.47
								12.75	2.78 8.34
								13.00	2.74 8.21
								13.25	2.69 8.08
								13.50	2.65 7.95
								13.75	2.61 7.82
								14.00	2.56 7.69
								14.25	2.52 7.56
								14.50	2.48 7.43
								14.75	2.43 7.30
								15.00	2.39 7.17
								15.25	2.35 7.04
								15.50	2.30 6.90
								15.75	2.26 6.77
								16.00	2.21 6.64
								16.25	2.17 6.51
								16.50	2.13 6.38
								16.75	2.08 6.25
								17.00	2.04 6.12
								17.25	2.00 5.99
								17.50	1.95 5.86
								17.75	1.91 5.73
								18.00	1.87 5.60
								18.25	1.82 5.47
								18.50	1.78 5.34
								18.75	1.74 5.21
								19.00	1.69 5.07
								19.25	1.65 4.94
								19.50	1.60 4.81
								19.75	1.56 4.68
								20.00	1.52 4.55
								20.25	1.47 4.42
								20.50	1.43 4.29

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours???

Yes  No

15.50 ft

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative			
X	MW-204_201305	10	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	15.00	2.39 7.17
X	MW-204_201305	10	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	15.25	2.35 7.04
X	MW-204_201305	10	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	15.50	2.30 6.90
X	MW-204_201305	10	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	15.75	2.26 6.77
X	MW-204_201305	10	Salinity	250 mL / HDPE / None	16.00	2.21 6.64
X	MW-204_201305	10	Cyanide	250 mL / HDPE / NaOH (GREEN)	16.25	2.17 6.51
X	MW-204_201305	10	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	16.50	2.13 6.38
X	MW-204_201305	10	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	16.75	2.08 6.25

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

P13-102

Date(s) of Sample Collection:

5/10/13

Time(s) of Sample Collection:

18230 15:45

Sampler's Identity:

MC/TJ

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 10.07 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	14:10	4.39	6.47	1534	—	19.8	—	7.00	4.95 14.86
2	19:26	8.78	6.72	1626	—	10.1	—	7.25	4.91 14.73
3	14:45	13.05	6.73	1519	—	12.6	—	7.50	4.87 14.60

Collected Sample Parameters: 10.76 1840 1.21 13.22 -27.5

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
X	P13-102_201305	(16) Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	10.00	4.43 13.29
X	P13-102_201305	(16) Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	10.25	4.39 13.16
X	P13-102_201305	(16) Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.50	4.34 13.03
X	P13-102_201305	(16) Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.75	4.30 12.90
X	P13-102_201305	(16) Salinity	250 mL / HDPE / None	11.00	4.26 12.77
X	P13-102_201305	(16) Cyanide	250 mL / HDPE / NaOH (GREEN)	11.25	4.21 12.64
X	P13-102_201305	(16) Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.50	4.17 12.50
X	P13-102_201305	(16) Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.75	4.12 12.37

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: P13-103

Date(s) of Sample Collection: 5/16/13

Time(s) of Sample Collection: 15:35

Sampler's Identity: MCIT

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 10.36 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Quantity (gal) to Purge X Volumes*
1	14:25	1.71	6.94	1325	—	8.9	—	6.00 2.50 7.50
2	14:29	2.92	6.97	1304	—	9.4	—	6.25 2.45 7.36
3	14:35	5.14	7.07	1343	—	10.1	—	6.50 2.41 7.23

Collected Sample Parameters: 10.36 10.20 0.010 15.18 -43.10

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative	9.75	1.84	5.53
X	P13-103_201305	10 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	10.00	1.80	5.40
X	P13-103_201305	10 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	10.25	1.76	5.27
X	P13-103_201305	10 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.50	1.71	5.14
X	P13-103_201305	10 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.75	1.67	5.01
X	P13-103_201305	10 Salinity	250 mL / HDPE / None	11.00	1.63	4.88
X	P13-103_201305	10 Cyanide	250 mL / HDPE / NaOH (GREEN)	11.25	1.58	4.75
X	P13-103_201305	10 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.50	1.54	4.62
X	P13-103_201305	10 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.75	1.50	4.49

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

12.00	1.45	4.36
12.25	1.41	4.23
12.50	1.37	4.10
12.75	1.32	3.97
13.00	1.28	3.84
13.25	1.23	3.70
13.50	1.19	3.57
13.75	1.15	3.44
14.00	1.10	3.31
14.25	1.06	3.18
14.50	1.02	3.05
14.75	0.97	2.92
15.00	0.93	2.79
15.25	0.89	2.66
15.50	0.84	2.53

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location:

MW-1 DEEP

Date(s) of Sample Collection:

5/6/13

Time(s) of Sample Collection:

16:05

Sampler's Identity:

MC/IT

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: **8.85** ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	14:55	2.89	7.56	1098	—	12.5	—	7.00	3.15 9.45
2	15:05	5.78	7.44	1072	—	9.7	—	7.25	3.11 9.32
3	15:10	8.66	7.43	1106	—	8.9	—	7.50	3.06 9.19

Collected Sample Parameters: 6.49 1317 2.52 12.74 -38.9

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
X	MW-1 DEEP_201305	(16) Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	10.00	2.63 7.88
X	MW-1 DEEP_201305	(16) Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	10.25	2.58 7.75
X	MW-1 DEEP_201305	(16) Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.50	2.54 7.62
X	MW-1 DEEP_201305	(16) Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.75	2.50 7.49
X	MW-1 DEEP_201305	(16) Salinity	250 mL / HDPE / None	11.00	2.45 7.36
X	MW-1 DEEP_201305	(16) Cyanide	250 mL / HDPE / NaOH (GREEN)	11.25	2.41 7.23
X	MW-1 DEEP_201305	(16) Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.50	2.37 7.10
X	MW-1 DEEP_201305	(16) Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.75	2.32 6.97

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-1 SHALLOW

Date(s) of Sample Collection: 5/16/13

Time(s) of Sample Collection: 10:10

Sampler's Identity: MC/T

Sampling completed at this location

(Do not check box until ALL items have been completed)

Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*	
	1	3
0.75	1.66	4.99
1.00	1.62	4.86
1.25	1.58	4.73
1.50	1.53	4.60
1.75	1.49	4.47
2.00	1.44	4.33
2.25	1.40	4.20
2.50	1.36	4.07
2.75	1.31	3.94
3.00	1.27	3.81
3.25	1.23	3.68
3.50	1.18	3.55
3.75	1.14	3.42
4.00	1.10	3.29
4.25	1.05	3.16
4.50	1.01	3.03
4.75	0.97	2.90
5.00	0.92	2.77
5.25	0.88	2.64
5.50	0.83	2.50
5.75	0.79	2.37
6.00	0.75	2.24
6.25	0.70	2.11
6.50	0.66	1.98
6.75	0.62	1.85
7.00	0.57	1.72
7.25	0.53	1.59
7.50	0.49	1.46
7.75	0.44	1.33
8.00	0.40	1.20
8.25	0.36	1.07
8.50	0.31	0.94
8.75	0.27	0.81
9.00	0.22	0.67
9.25	0.18	0.54
9.50	0.14	0.41
9.75	0.09	0.28
10.00	0.05	0.15
10.25	0.01	0.02

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 6.38 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	
1	15:10	0.166	7.38	1133	—	8.9	—	2.25
2	15:13	1.32	7.36	1075	—	8.6	—	2.50
3	15:18	1.98	7.44	1103	—	9.0	—	2.75
		Collected Sample Parameters:	6.35	1331	4.34	11:52	-30.0	3.00
								3.25
								3.50
								3.75
								4.00
								4.25
								4.50

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
X	MW-1 SHALLOW_201305	16	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
X	MW-1 SHALLOW_201305	16	Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
X	MW-1 SHALLOW_201305	16	Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
X	MW-1 SHALLOW_201305	16	Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
X	MW-1 SHALLOW_201305	16	Salinity 250 mL / HDPE / None
X	MW-1 SHALLOW_201305	16	Cyanide 250 mL / HDPE / NaOH (GREEN)
X	MW-1 SHALLOW_201305	16	Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	MW-1 SHALLOW_201305	16	Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-2 DEEP  
 Date(s) of Sample Collection: 5-22-13  
 Time(s) of Sample Collection: 12:10  
 Sampler's Identity: MW-2 DEEP\_20130522

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 9.75 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
								1	3
1	11:51	2.5	6.96	1402	—	9.56	—	6.00	2.97 8.92
2	11:57	5.00	7.37	1387	—	9.51	—	6.25	2.93 8.78
3	12:05	7.5	7.03	1408	—	9.71	—	6.50	2.88 8.65
Collected Sample Parameters:		6.99	1413	2.96	904	-44.9	—	6.75	2.84 8.52
							7.00	2.80	8.39
							7.25	2.75	8.26
							7.50	2.71	8.13
							7.75	2.67	8.00
							8.00	2.62	7.87
							8.25	2.58	7.74
							8.50	2.54	7.61
							8.75	2.49	7.48
							9.00	2.45	7.35
							9.25	2.41	7.22
							9.50	2.36	7.09
							9.75	2.32	6.95

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours??  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative		
/	MW-2 DEEP_201305	22 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	10.00	2.27 6.82
/	MW-2 DEEP_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	10.25	2.23 6.69
/	MW-2 DEEP_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	10.50	2.19 6.56
/	MW-2 DEEP_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	10.75	2.14 6.43
/	MW-2 DEEP_201305	Salinity	250 mL / HDPE / None	11.00	2.10 6.30
/	MW-2 DEEP_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)	11.25	2.06 6.17
/	MW-2 DEEP_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	11.50	2.01 6.04
	MW-2 DEEP_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	11.75	1.97 5.91

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

Clear clean water

## Rico Water Sampling Form: Station Information

 Surface Water       Groundwater

## Groundwater

Other

### Sample Location:

**MW-2 SHALLOW**

Date(s) of Sample Collection:

3/27/13

**Time(s) of Sample Collection:**

11-296

### **Sampler's Identity:**

MW-2 Svc [14] 20130523

## **FIELD PARAMETERS / MEASUREMENTS**

Measured Depth to Water: 9.90 ft  
10.14

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

**SAMPLE BOTTLE INFORMATION - Check off each bottle when completed**

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	MW-2 SHALLOW_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	MW-2 SHALLOW_201305	Dissolved Metals ( <u>Field Filtered</u> )	250 mL / HDPE / HNO3 (RED)
	MW-2 SHALLOW_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	MW-2 SHALLOW_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	MW-2 SHALLOW_201305	Salinity	250 mL / HDPE / None
	MW-2 SHALLOW_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	MW-2 SHALLOW_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	MW-2 SHALLOW_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

## Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

not enough water to sample

Dr.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-3 DEEP

Date(s) of Sample Collection: 5/22/13

Time(s) of Sample Collection: 11:37

Sampler's Identity: MCTB

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 9.46 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)		Quantity (gal) to Purge X Volumes*
								1	3	
1	11:30	2.50	6.88	1398	—	11.96	—	7.00	2.84	8.52
2	11:33	5.00	6.92	1410	—	11.95	—	7.25	2.80	8.39
3	11:35	7.50	6.94	1417	—	11.72	—	6.00	3.01	9.04
Collected Sample Parameters:		6.93	1420	8.48	11.43	-115.2	6.25	2.97	8.91	6.25
							6.50	2.93	8.78	6.75
							7.00	2.88	8.65	7.25
							7.50	2.75	8.26	8.00
							7.75	2.71	8.13	8.25
							8.00	2.67	8.00	8.50
							8.25	2.62	7.86	8.75
							8.50	2.58	7.73	9.00
							8.75	2.53	7.60	9.25
							9.00	2.49	7.47	9.50
							9.25	2.45	7.34	9.75
							10.00	2.32	6.95	12.00
							10.25	2.27	6.82	12.25
							10.50	2.23	6.69	12.50
							10.75	2.19	6.56	12.75
							11.00	2.14	6.43	13.00
							11.25	2.10	6.30	13.25
							11.50	2.06	6.17	13.50
							11.75	2.01	6.03	13.75
							12.00	1.97	5.90	14.00
							12.25	1.92	5.77	12.50
							12.50	1.88	5.64	12.75
							12.75	1.84	5.51	13.00
							13.00	1.79	5.38	13.25
							13.25	1.75	5.25	13.50
							13.50	1.71	5.12	13.75
							13.75	1.66	4.99	14.00
							14.00	1.62	4.86	14.25
							14.25	1.58	4.73	14.50
							14.50	1.53	4.60	14.75
							14.75	1.49	4.47	15.00
							15.00	1.44	4.33	15.25
							15.25	1.40	4.20	15.50
							15.50	1.36	4.07	

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	MW-3 DEEP_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	MW-3 DEEP_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	MW-3 DEEP_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	MW-3 DEEP_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	MW-3 DEEP_201305	Salinity	250 mL / HDPE / None
	MW-3 DEEP_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	MW-3 DEEP_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	MW-3 DEEP_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

MW-3 SHALLOW

Date(s) of Sample Collection:

5/22/13

Time(s) of Sample Collection:

Sampler's Identity:

MC/TP

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS \*

Measured Depth to Water: \_\_\_\_\_ ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
1					—		—
2					—		—
3					—		—
Collected Sample Parameters:							

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
	MW-3 SHALLOW_201305	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	MW-3 SHALLOW_201305	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	MW-3 SHALLOW_201305	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	MW-3 SHALLOW_201305	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	MW-3 SHALLOW_201305	Salinity	250 mL / HDPE / None
	MW-3 SHALLOW_201305	Cyanide	250 mL / HDPE / NaOH (GREEN)
	MW-3 SHALLOW_201305	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	MW-3 SHALLOW_201305	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

\* Trace of water - not a measurable depth

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

MW-4 DEEP

Date(s) of Sample Collection:

5/16/13

Time(s) of Sample Collection:

15:30

Sampler's Identity:

M C / T T

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 16.49 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
1	13:4	2.5	6.46	1228	—	15.0	—	13.00	3.18 9.54
2	13:18	5.05	6.58	1170	—	14.4	—	13.25	3.14 9.41
3	13:25	7.30	6.56	1216	—	11.6	—	13.50	3.09 9.28
Collected Sample Parameters:		6.42	2405	4.77	17.86	-29.5	—	13.75	3.05 9.15
							14.00	3.01 9.02	
							14.25	2.96 8.88	
							14.50	2.92 8.75	
							14.75	2.87 8.62	
							15.00	2.83 8.49	
							15.25	2.79 8.36	
							15.50	2.74 8.23	
							15.75	2.70 8.10	
							16.00	2.66 7.97	
							16.25	2.61 7.84	
							16.50	2.57 7.71	
							16.75	2.53 7.58	

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
X	MW-4 DEEP_201305	16 Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
X	MW-4 DEEP_201305	16 Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
X	MW-4 DEEP_201305	16 Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
X	MW-4 DEEP_201305	16 Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
X	MW-4 DEEP_201305	16 Salinity	250 mL / HDPE / None
X	MW-4 DEEP_201305	16 Cyanide	250 mL / HDPE / NaOH (GREEN)
X	MW-4 DEEP_201305	16 Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	MW-4 DEEP_201305	16 Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: MW-4 SHALLOW

Date(s) of Sample Collection: 5/16/13

Time(s) of Sample Collection: 1630 15:35

Sampler's Identity: MC/TJ

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 16.54 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, °C	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
								1	3
1	13:20	.30	6.66	807	—	11.3	—	8.75	1.68 5.04
2	13:30	.60	7.10	973	—	12.3	—	9.00	1.64 4.91
3	13:35	.90	6.68	919	—	13.3	—	9.25	1.59 4.78
Collected Sample Parameters:								9.50	1.55 4.65
								9.75	1.51 4.52
								10.00	1.46 4.39
								10.25	1.42 4.26
								10.50	1.38 4.13
								10.75	1.33 4.00
								11.00	1.29 3.86
								11.25	1.24 3.73
								11.50	1.20 3.60
								11.75	1.16 3.47
								12.00	1.11 3.34
								12.25	1.07 3.21
								12.50	1.03 3.08
								12.75	0.98 2.95
								13.00	0.94 2.82
								13.25	0.90 2.69
								13.50	0.85 2.56
								13.75	0.81 2.43
								14.00	0.77 2.30
								14.25	0.72 2.16
								14.50	0.68 2.03
								14.75	0.63 1.90
								15.00	0.59 1.77
								15.25	0.55 1.64
								15.50	0.50 1.51
								15.75	0.46 1.38
								16.00	0.42 1.25
								16.25	0.37 1.12
								16.50	0.33 0.99
								16.75	0.29 0.86
								17.00	0.24 0.73
								17.25	0.20 0.60
								17.50	0.16 0.47
								17.75	0.11 0.33
								18.00	0.07 0.20
								18.25	0.02 0.07

Notes:  
\* If conditions significantly change, purge volume can be calculated as follows:  
One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)  
\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

MW-5 SHALLOW

Date(s) of Sample Collection:

5/21/13

Time(s) of Sample Collection:

11:27

Sampler's Identity:

NC

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 15.76 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Quantity (gal) to Purge X Volumes*		
								1	3	
1	11:08	1.0	4.46	3606	—	10.08	—	12.50	1.49	4.46
2	11:15	2.0	4.53	3606	—	9.93	—	12.75	1.44	4.32
3	11:22	3.0	4.61	3609	—	9.98	—	13.00	1.40	4.19
Collected Sample Parameters:		4.53	3609	0.27	10.22	44.8	—	13.25	1.35	4.06
							13.50	1.31	3.93	
							13.75	1.27	3.80	
							14.00	1.22	3.67	
							14.25	1.18	3.54	
							14.50	1.14	3.41	
							14.75	1.09	3.28	
							15.00	1.05	3.15	
							15.25	1.01	3.02	

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative				
	MW-5 SHALLOW_201305	Z1	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)	15.50	0.96	2.89
	MW-5 SHALLOW_201305	Z1	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)	15.75	0.92	2.76
	MW-5 SHALLOW_201305	Z1	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)	16.00	0.88	2.63
	MW-5 SHALLOW_201305	Z1	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None	16.25	0.83	2.49
	MW-5 SHALLOW_201305	Z1	Salinity	250 mL / HDPE / None	16.50	0.79	2.36
	MW-5 SHALLOW_201305	Z1	Cyanide	250 mL / HDPE / NaOH (GREEN)	16.75	0.74	2.23
	MW-5 SHALLOW_201305	Z1	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)	17.00	0.70	2.10
	MW-5 SHALLOW_201305	Z1	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)	17.25	0.66	1.97

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location:

MW-5 DEEP

Date(s) of Sample Collection:

TB 5/21/13

Time(s) of Sample Collection:

11:33

Sampler's Identity:

TB

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 10.91 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
								1	3
1	11:10	3.00	7.02	2527	—	10.94	—	14.00	3.52 10.56
2	11:19	6.00	6.20	2257	—	10.88	—	14.25	3.48 10.43
3	11:29	9.00	6.78	2127	—	11.57	—	14.50	3.43 10.30
Collected Sample Parameters:		6.46	2132	133	1063	—	—	14.75	3.39 10.17
								15.00	3.35 10.04
								15.25	3.30 9.91
								15.50	3.26 9.78
								15.75	3.22 9.65
								16.00	3.17 9.52
								16.25	3.13 9.39
								16.50	3.09 9.26
								16.75	3.04 9.12
								17.00	3.00 8.99
								17.25	2.95 8.86
								17.50	2.91 8.73
								17.75	2.87 8.60
								18.00	2.82 8.47
								18.25	2.78 8.34
								18.50	2.74 8.21
								18.75	2.69 8.08
								19.00	2.65 7.95
								19.25	2.61 7.82
								19.50	2.56 7.69
								19.75	2.52 7.56
								20.00	2.48 7.43
								20.25	2.43 7.29
								20.50	2.39 7.16
								20.75	2.34 7.03
								21.00	2.30 6.90
								21.25	2.26 6.77
								21.50	2.21 6.64
								21.75	2.17 6.51
								22.00	2.13 6.38
								22.25	2.08 6.25
								22.50	2.04 6.12
								22.75	2.00 5.99
								23.00	1.95 5.86
								23.25	1.91 5.73
								23.50	1.87 5.60

## Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume = 0.174305 x (Measured Depth to Water - Depth to Well Bottom)

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location:

MW-6 DEEP

Date(s) of Sample Collection:

5/16/13

Time(s) of Sample Collection:

1:30 - 2:00pm

Sampler's Identity:

T. Thompson, M. Carpenter  
Thaler

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 22.07 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*
1	1:32	3.04	6.44	1412	—	13.9	—	19.00	3.71 11.14
2	1:45	6.12	6.41	1448	—	14.0	—	19.25	3.67 11.01
3	1:59	9.18	6.60	1495	—	13.0	—	19.50	3.63 10.88
Collected Sample Parameters:		6.08	1091	7.81	15.47	-49.1		19.75	3.58 10.75
								20.00	3.54 10.62
								20.25	3.49 10.48
								20.50	3.45 10.35
								20.75	3.41 10.22
								21.00	3.36 10.09
								21.25	3.32 9.96
								21.50	3.28 9.83
								21.75	3.23 9.70
								22.00	3.19 9.57
								22.25	3.15 9.44
								22.50	3.10 9.31
								22.75	3.06 9.18
								23.00	3.02 9.05
								23.25	2.97 8.92
								23.50	2.93 8.78
								23.75	2.88 8.65
								24.00	2.84 8.52
								24.25	2.80 8.39
								24.50	2.75 8.26
								24.75	2.71 8.13
								25.00	2.67 8.00
								25.25	2.62 7.87
								25.50	2.58 7.74
								25.75	2.54 7.61
								26.00	2.49 7.48
								26.25	2.45 7.35
								26.50	2.41 7.22
								26.75	2.36 7.09
								27.00	2.32 6.95
								27.25	2.27 6.82
								27.50	2.23 6.69
								27.75	2.19 6.56
								28.00	2.14 6.43
								28.25	2.10 6.30
								28.50	2.06 6.17

Sampling completed at this location

(Do not check box until ALL items have been completed)

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
X	MW-6 DEEP_201304	15	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
X	MW-6 DEEP_201304	15	Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
X	MW-6 DEEP_201304	15	Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
X	MW-6 DEEP_201304	15	Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
X	MW-6 DEEP_201304	15	Salinity 250 mL / HDPE / None
X	MW-6 DEEP_201304	15	Cyanide 250 mL / HDPE / NaOH (GREEN)
X	MW-6 DEEP_201304	15	Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
X	MW-6 DEEP_201304	15	Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location:

MW-6 SHALLOW

Date(s) of Sample Collection:

5/15/13

Time(s) of Sample Collection:

2:50PM

Sampler's Identity:

T. Thompson, M. Lapeyrouse  
Tracker

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: 22.76 ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Quantity (gal) to Purge X Volumes*	
								1	3
1	2:11	0.74	6.26	1781	—	12.0	—	17.50	1.70 5.09
2	2:20	1.48	6.45	16416	—	11.3	—	17.75	1.65 4.96
3	2:33	2.22	6.40	1983	—	11.9	—	18.00	1.61 4.83
Collected Sample Parameters:		7.1	1333	7.1	15.99	-52.2	18.25	1.57	4.70
								18.50	1.52 4.57
								18.75	1.48 4.44
								19.00	1.44 4.31
								19.25	1.39 4.18
								19.50	1.35 4.05
								19.75	1.31 3.92
								20.00	1.26 3.79
								20.25	1.22 3.66
								20.50	1.17 3.52
								20.75	1.13 3.39
								21.00	1.09 3.26
								21.25	1.04 3.13
								21.50	1.00 3.00
								21.75	0.96 2.87
								22.00	0.91 2.74
								22.25	0.87 2.61
								22.50	0.83 2.48
								22.75	0.78 2.35
								23.00	0.74 2.22
								23.25	0.70 2.09
								23.50	0.65 1.96
								23.75	0.61 1.82
								24.00	0.56 1.69
								24.25	0.52 1.56
								24.50	0.48 1.43
								24.75	0.43 1.30
								25.00	0.39 1.17
								25.25	0.35 1.04
								25.50	0.30 0.91
								25.75	0.26 0.78
								26.00	0.22 0.65
								26.25	0.17 0.52
								26.50	0.13 0.39
								26.75	0.09 0.26
								27.00	0.04 0.13

## Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

# Rico Water Sampling Form: Station Information

Surface Water

Groundwater

Other

Sample Location:

AT-2

Sampling completed at this location

(Do not check box until ALL items  
have been completed)

Date(s) of Sample Collection:

5/22/13

Time(s) of Sample Collection:

1:55

Sampler's Identity:

MCL/TB

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV	Depth along angle from casing invert (ft)
7.64	1097	0.00	18.79	-137.2	124.0

Data downloaded from transducer?

Yes

No

Has transducer been cleaned and recalibrated?

Yes

No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	AT-2_201305	22	Total Metals, Hardness, Silica 250 mL / HDPE / HNO3 (RED)
/	AT-2_201305		Dissolved Metals (Field Filtered) 250 mL / HDPE / HNO3 (RED)
/	AT-2_201305		Potentially Dissolved Metals 250 mL / HDPE / HNO3 (RED)
/	AT-2_201305		Alkalinity, TSS, TDS, Chloride, Sulfate 500 mL / HDPE / None
/	AT-2_201305		Salinity 250 mL / HDPE / None
/	AT-2_201305		Cyanide 250 mL / HDPE / NaOH (GREEN)
/	AT-2_201305		Sulfide 250 mL / HDPE / NaOH + Zn Acetate (BLACK)
/	AT-2_201305		Total Organic Carbon, Nitrate 250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water     Groundwater     Other

Sample Location:

BAH-01

Sampling completed at this location

(Do not check box until ALL items have been completed)

Date(s) of Sample Collection:

5/21/13

Time(s) of Sample Collection:

1:40

Sampler's Identity:

M.L.B.

197.2 ft

## FIELD PARAMETERS / MEASUREMENTS

pH	EC, µS/cm	DO, ppm	Temp, °C	ORP, mV	Depth along angle from casing invert (ft)
8.12	1010	0.00	18.03	-168.0	197.2

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
-----------------------------	----------	-------------------------------

<input checked="" type="checkbox"/>	AT-2_201305	21	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	AT-2_201305		Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	AT-2_201305		Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
<input checked="" type="checkbox"/>	AT-2_201305		Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
<input checked="" type="checkbox"/>	AT-2_201305		Salinity	250 mL / HDPE / None
<input checked="" type="checkbox"/>	AT-2_201305		Cyanide	250 mL / HDPE / NaOH (GREEN)
<input checked="" type="checkbox"/>	AT-2_201305		Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
<input checked="" type="checkbox"/>	AT-2_201305		Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

Notes:

# Rico Water Sampling Form: Station Information

Surface Water  Groundwater  Other

Sample Location: **CHV-101 S**

Date(s) of Sample Collection: **5/22/13**

Time(s) of Sample Collection: **2:50**

Sampler's Identity: **NC ITB**

Sampling completed at this location

(Do not check box until ALL items have been completed)

## FIELD PARAMETERS / MEASUREMENTS

Measured Depth to Water: **49.00** ft

# of Purge Volumes	Time	Cummulative Volume (gal)	pH	EC, $\mu\text{S}/\text{cm}$	DO, ppm	Temp, $^{\circ}\text{C}$	ORP, mV
1	2:20	2.25	6.60	1368		17.13	
2	2:34	4.50	6.57	1372		16.02	
3	2:41	6.75	6.51	1378		16.04	

Collected Sample Parameters: **6.51 1378 2.11 15.99 22.8**

Well purged dry?  Yes  No

If Yes, did well recover to 80% within 24 hours?\*\*  Yes  No

## SAMPLE BOTTLE INFORMATION - Check off each bottle when completed

X	Field Sample ID on Bottle	Analysis	Bottle size/Type/Preservative
/	GW-1_201304	Total Metals, Hardness, Silica	250 mL / HDPE / HNO3 (RED)
	GW-1_201304	Dissolved Metals (Field Filtered)	250 mL / HDPE / HNO3 (RED)
	GW-1_201304	Potentially Dissolved Metals	250 mL / HDPE / HNO3 (RED)
	GW-1_201304	Alkalinity, TSS, TDS, Chloride, Sulfate	500 mL / HDPE / None
	GW-1_201304	Salinity	250 mL / HDPE / None
	GW-1_201304	Cyanide	250 mL / HDPE / NaOH (GREEN)
	GW-1_201304	Sulfide	250 mL / HDPE / NaOH + Zn Acetate (BLACK)
	GW-1_201304	Total Organic Carbon, Nitrate	250 mL / Amber Glass / H2SO4 (YELLOW)

### Notes:

\* If conditions significantly change, purge volume can be calculated as follows:

One purge volume =  $0.174305 \times (\text{Measured Depth to Water} - \text{Depth to Well Bottom})$

\*\* If "No", well is declared dry for the sampling event.

Measured Depth to Water (ft)	Quantity (gal) to Purge X Volumes*	
	1	3
33.00	5.25	15.74
33.25	5.16	15.48
33.50	5.07	15.22
33.75	4.99	14.96
34.00	4.90	14.69
34.25	4.81	14.43
34.50	4.72	14.17
34.75	4.64	13.91
35.00	4.55	13.65
35.25	4.46	13.39
35.50	4.38	13.13
35.75	4.29	12.86
36.00	4.20	12.60
36.25	4.11	12.34
36.50	4.03	12.08
36.75	3.94	11.82
37.00	3.85	11.56
37.25	3.76	11.29
37.50	3.68	11.03
37.75	3.59	10.77
38.00	3.50	10.51
38.25	3.42	10.25
38.50	3.33	9.99
38.75	3.24	9.73
39.00	3.15	9.46
39.25	3.07	9.20
39.50	2.98	8.94
39.75	2.89	8.68
40.00	2.81	8.42
40.25	2.72	8.16
40.50	2.63	7.90
40.75	2.54	7.63
41.00	2.46	7.37
41.25	2.37	7.11
41.50	2.28	6.85
41.75	2.20	6.59
42.00	2.11	6.33
42.25	2.02	6.07
42.50	1.93	5.80

## Rico Water Sampling Form: Stream Flow Measurements

Page 1 of 3

NOTE: Each velocity reading must have a corresponding depth reading with matching cell number. Each cell represents a 1-foot subsection. Measurements are to be taken every foot.

## Rico Water Sampling Form: Stream Flow Measurements

Page 2 of 3

Location:	DR-4-SW	Location:	DR-G	Location:	
Benchmark Elevation:	4 43	Benchmark Elevation:	4 36	Benchmark Elevation:	
River Water Elevation:	5 89	River Water Elevation:	7 27	River Water Elevation:	
<input type="checkbox"/> East to West		<input type="checkbox"/> East to West		<input type="checkbox"/> East to West	
<input checked="" type="checkbox"/> West to East		<input type="checkbox"/> West to East		<input type="checkbox"/> West to East	
Velocity (ft/sec)	Depth (ft)	Velocity (ft/sec)	Depth (ft)	Velocity (ft/sec)	Depth (ft)
E 3		B 3		BM 11/12/13	SP 13
E 4		B 4			
E 3		4		BM 11/12/13	4 58
I		4		pond 11	9 68
M 3		E 4		12	8 89
M 3		F 5		14	7 47
M 3		M 3		BM 7/6	5 07
W 3		M 3		pond 8	7 82
W 3		W 3		pond 7	11 26
W 4		W 3		BM 9/10	3 99
				pond 9	3 08
				10	6 04
				BM DR2	5 18 479
				DR-2	9 80
				pond 6	6 29
				5	8 38
				CP 1	1 60
				pond 4	13 06
				3	14 92
				BM 1/2	3 20
				pond 2	5 78
				1	8 24

**NOTE:** Each velocity reading must have a corresponding depth reading with matching cell number. Each cell represents a 1-foot subsection. Measurements are to be taken every foot.

**Appendix I**

**North Flume OTT PLS Data with Flowrates**

**OTT PLS Data at North Flume, May 2013**

Date, Time	Depth Reading (ft)	Flowrate	
		(cfs)	(gpm)
5/1/2013 8:30	0.55	1.24	558.0
5/1/2013 8:40	0.55	1.24	558.0
5/1/2013 8:50	0.55	1.24	558.0
5/1/2013 9:00	0.55	1.24	558.0
5/1/2013 9:10	0.55	1.24	558.0
5/1/2013 9:20	0.55	1.24	558.0
5/1/2013 9:30	0.55	1.24	558.0
5/1/2013 9:40	0.55	1.24	558.0
5/1/2013 9:50	0.55	1.24	558.0
5/1/2013 10:00	0.55	1.24	558.0
5/1/2013 10:10	0.55	1.24	558.0
5/1/2013 10:20	0.55	1.24	558.0
5/1/2013 10:30	0.55	1.24	558.0
5/1/2013 10:40	0.55	1.24	558.0
5/1/2013 10:50	0.55	1.24	558.0
5/1/2013 11:00	0.55	1.24	558.0
5/1/2013 11:10	0.55	1.24	558.0
5/1/2013 11:20	0.55	1.24	558.0
5/1/2013 11:30	0.55	1.24	558.0
5/1/2013 11:40	0.55	1.24	558.0
5/1/2013 11:50	0.55	1.24	558.0
5/1/2013 12:00	0.55	1.24	558.0
5/1/2013 12:10	0.55	1.24	558.0
5/1/2013 12:20	0.55	1.24	558.0
5/1/2013 12:30	0.55	1.24	558.0
5/1/2013 12:40	0.55	1.24	558.0
5/1/2013 12:50	0.55	1.24	558.0
5/1/2013 13:00	0.55	1.24	558.0
5/1/2013 13:10	0.55	1.24	558.0
5/1/2013 13:20	0.55	1.24	558.0
5/1/2013 13:30	0.55	1.24	558.0
5/1/2013 13:40	0.55	1.24	558.0
5/1/2013 13:50	0.55	1.24	558.0
5/1/2013 14:00	0.55	1.24	558.0
5/1/2013 14:10	0.55	1.24	558.0
5/1/2013 14:20	0.55	1.24	558.0
5/1/2013 14:30	0.55	1.24	558.0
5/1/2013 14:40	0.55	1.24	558.0
5/1/2013 14:50	0.55	1.24	558.0
5/1/2013 15:00	0.55	1.24	558.0
5/1/2013 15:10	0.55	1.24	558.0
5/1/2013 15:20	0.55	1.24	558.0

5/1/2013 15:30	0.55	1.24	558.0
5/1/2013 15:40	0.55	1.24	558.0
5/1/2013 15:50	0.55	1.24	558.0
5/1/2013 16:00	0.55	1.24	558.0
5/1/2013 16:10	0.55	1.24	558.0
5/1/2013 16:20	0.55	1.24	558.0
5/1/2013 16:30	0.54	1.21	542.7
5/1/2013 16:40	0.55	1.24	558.0
5/1/2013 16:50	0.55	1.24	558.0
5/1/2013 17:00	0.55	1.24	558.0
5/1/2013 17:10	0.55	1.24	558.0
5/1/2013 17:20	0.55	1.24	558.0
5/1/2013 17:30	0.55	1.24	558.0
5/1/2013 17:40	0.55	1.24	558.0
5/1/2013 17:50	0.55	1.24	558.0
5/1/2013 18:00	0.55	1.24	558.0
5/1/2013 18:10	0.55	1.24	558.0
5/1/2013 18:20	0.55	1.24	558.0
5/1/2013 18:30	0.55	1.24	558.0
5/1/2013 18:40	0.55	1.24	558.0
5/1/2013 18:50	0.55	1.24	558.0
5/1/2013 19:00	0.55	1.24	558.0
5/1/2013 19:10	0.55	1.24	558.0
5/1/2013 19:20	0.55	1.24	558.0
5/1/2013 19:30	0.55	1.24	558.0
5/1/2013 19:40	0.55	1.24	558.0
5/1/2013 19:50	0.55	1.24	558.0
5/1/2013 20:00	0.55	1.24	558.0
5/1/2013 20:10	0.55	1.24	558.0
5/1/2013 20:20	0.55	1.24	558.0
5/1/2013 20:30	0.55	1.24	558.0
5/1/2013 20:40	0.55	1.24	558.0
5/1/2013 20:50	0.55	1.24	558.0
5/1/2013 21:00	0.55	1.24	558.0
5/1/2013 21:10	0.55	1.24	558.0
5/1/2013 21:20	0.55	1.24	558.0
5/1/2013 21:30	0.55	1.24	558.0
5/1/2013 21:40	0.55	1.24	558.0
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5/2/2013 8:00	0.55	1.24	558.0
5/2/2013 8:10	0.55	1.24	558.0
5/2/2013 8:20	0.55	1.24	558.0
5/2/2013 8:30	0.55	1.24	558.0
5/2/2013 8:40	0.55	1.24	558.0
5/2/2013 8:50	0.55	1.24	558.0

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5/2/2013 9:10	0.55	1.24	558.0
5/2/2013 9:20	0.55	1.24	558.0
5/2/2013 9:30	0.55	1.24	558.0
5/2/2013 9:40	0.55	1.24	558.0
5/2/2013 9:50	0.55	1.24	558.0
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5/2/2013 11:20	0.55	1.24	558.0
5/2/2013 11:30	0.55	1.24	558.0
5/2/2013 11:40	0.55	1.24	558.0
5/2/2013 11:50	0.55	1.24	558.0
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5/2/2013 12:30	0.55	1.24	558.0
5/2/2013 12:40	0.55	1.24	558.0
5/2/2013 12:50	0.55	1.24	558.0
5/2/2013 13:00	0.55	1.24	558.0
5/2/2013 13:10	0.55	1.24	558.0
5/2/2013 13:20	0.55	1.24	558.0
5/2/2013 13:30	0.55	1.24	558.0
5/2/2013 13:40	0.55	1.24	558.0
5/2/2013 13:50	0.55	1.24	558.0
5/2/2013 14:00	0.55	1.24	558.0
5/2/2013 14:10	0.55	1.24	558.0
5/2/2013 14:20	0.55	1.24	558.0
5/2/2013 14:30	0.55	1.24	558.0
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5/18/2013 16:00	0.57	1.31	588.9
5/18/2013 16:10	0.57	1.31	588.9
5/18/2013 16:20	0.57	1.31	588.9
5/18/2013 16:30	0.57	1.31	588.9
5/18/2013 16:40	0.57	1.31	588.9
5/18/2013 16:50	0.57	1.31	588.9
5/18/2013 17:00	0.57	1.31	588.9
5/18/2013 17:10	0.57	1.31	588.9
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5/18/2013 18:50	0.57	1.31	588.9
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5/18/2013 19:10	0.57	1.31	588.9
5/18/2013 19:20	0.57	1.31	588.9
5/18/2013 19:30	0.57	1.31	588.9

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5/18/2013 19:50	0.57	1.31	588.9
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5/18/2013 22:30	0.57	1.31	588.9
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5/20/2013 13:00	0.57	1.31	588.9
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5/20/2013 13:30	0.57	1.31	588.9
5/20/2013 14:00	0.57	1.31	588.9
5/20/2013 14:20	0.57	1.31	588.9
5/20/2013 14:40	0.57	1.31	588.9
5/25/2013 8:20	0.58	1.35	604.6

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5/25/2013 8:40	0.57	1.31	588.9
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5/25/2013 9:00	0.57	1.31	588.9
5/25/2013 9:10	0.58	1.35	604.6
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5/25/2013 9:40	0.58	1.35	604.6
5/25/2013 9:50	0.58	1.35	604.6
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5/25/2013 10:20	0.58	1.35	604.6
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5/25/2013 10:50	0.58	1.35	604.6
5/25/2013 10:51	0.58	1.35	604.6
5/25/2013 10:56	0.57	1.31	588.9
5/25/2013 11:00	0.58	1.35	604.6
5/25/2013 11:10	0.57	1.31	588.9
5/25/2013 11:20	0.57	1.31	588.9
5/25/2013 11:30	0.58	1.35	604.6
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5/25/2013 11:50	0.57	1.31	588.9
5/25/2013 12:00	0.58	1.35	604.6
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5/25/2013 12:51	0.58	1.35	604.6
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5/25/2013 14:00	0.58	1.35	604.6
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5/25/2013 14:20	0.57	1.31	588.9
5/25/2013 14:30	0.58	1.35	604.6
5/25/2013 14:40	0.58	1.35	604.6
5/25/2013 14:50	0.58	1.35	604.6
5/25/2013 15:00	0.58	1.35	604.6
5/25/2013 15:10	0.58	1.35	604.6
5/25/2013 15:20	0.58	1.35	604.6
5/25/2013 15:30	0.58	1.35	604.6
5/25/2013 15:40	0.58	1.35	604.6
5/25/2013 15:50	0.58	1.35	604.6

5/25/2013 16:00	0.58	1.35	604.6
5/25/2013 16:10	0.57	1.31	588.9
5/25/2013 16:20	0.57	1.31	588.9
5/25/2013 16:30	0.58	1.35	604.6
5/25/2013 16:40	0.58	1.35	604.6
5/25/2013 16:50	0.58	1.35	604.6
5/25/2013 17:00	0.58	1.35	604.6
5/25/2013 17:10	0.58	1.35	604.6
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5/25/2013 17:30	0.58	1.35	604.6
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5/25/2013 18:40	0.58	1.35	604.6
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5/26/2013 7:50	0.58	1.35	604.6
5/26/2013 8:10	0.58	1.35	604.6
5/26/2013 8:20	0.58	1.35	604.6
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5/26/2013 8:50	0.58	1.35	604.6
5/26/2013 9:00	0.58	1.35	604.6

5/26/2013 9:10	0.58	1.35	604.6
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5/27/2013 11:00	0.58	1.35	604.6
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5/28/2013 22:50	0.58	1.35	604.6
5/28/2013 23:00	0.58	1.35	604.6
5/28/2013 23:10	0.58	1.35	604.6
5/29/2013 9:50	0.58	1.35	604.6
5/29/2013 10:10	0.58	1.35	604.6
5/29/2013 10:20	0.58	1.35	604.6
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5/29/2013 15:50	0.58	1.35	604.6
5/29/2013 16:00	0.58	1.35	604.6
5/29/2013 16:10	0.58	1.35	604.6
5/29/2013 16:20	0.58	1.35	604.6
5/29/2013 16:30	0.58	1.35	604.6
5/29/2013 16:40	0.58	1.35	604.6
5/29/2013 16:50	0.58	1.35	604.6
5/29/2013 17:00	0.58	1.35	604.6
5/29/2013 17:10	0.58	1.35	604.6
5/29/2013 17:20	0.58	1.35	604.6
5/29/2013 17:30	0.58	1.35	604.6
5/29/2013 17:40	0.58	1.35	604.6
5/29/2013 17:50	0.58	1.35	604.6
5/29/2013 18:00	0.58	1.35	604.6
5/29/2013 18:10	0.58	1.35	604.6
5/29/2013 18:20	0.58	1.35	604.6
5/29/2013 18:30	0.58	1.35	604.6
5/29/2013 18:40	0.58	1.35	604.6
5/29/2013 18:50	0.58	1.35	604.6
5/29/2013 19:00	0.58	1.35	604.6
5/29/2013 19:10	0.58	1.35	604.6
5/29/2013 19:20	0.58	1.35	604.6
5/29/2013 19:30	0.58	1.35	604.6
5/29/2013 19:40	0.58	1.35	604.6
5/29/2013 19:50	0.58	1.35	604.6
5/29/2013 20:00	0.58	1.35	604.6
5/29/2013 20:10	0.58	1.35	604.6
5/29/2013 20:20	0.58	1.35	604.6
5/29/2013 20:30	0.58	1.35	604.6
5/29/2013 20:40	0.58	1.35	604.6

5/29/2013 20:50	0.58	1.35	604.6
5/29/2013 21:00	0.58	1.35	604.6
5/29/2013 21:10	0.58	1.35	604.6
5/29/2013 21:20	0.58	1.35	604.6
5/29/2013 21:30	0.58	1.35	604.6
5/29/2013 21:40	0.58	1.35	604.6
5/29/2013 21:50	0.58	1.35	604.6
5/29/2013 22:00	0.58	1.35	604.6
5/30/2013 10:30	0.58	1.35	604.6
5/30/2013 10:40	0.58	1.35	604.6
5/30/2013 10:50	0.58	1.35	604.6
5/30/2013 11:00	0.58	1.35	604.6
5/30/2013 11:10	0.58	1.35	604.6
5/30/2013 11:20	0.58	1.35	604.6
5/30/2013 11:30	0.58	1.35	604.6
5/30/2013 11:40	0.58	1.35	604.6
5/30/2013 11:50	0.58	1.35	604.6
5/30/2013 12:00	0.58	1.35	604.6
5/30/2013 12:10	0.58	1.35	604.6
5/30/2013 12:20	0.57	1.31	588.9
5/30/2013 12:30	0.58	1.35	604.6
5/30/2013 12:40	0.57	1.31	588.9
5/30/2013 12:50	0.58	1.35	604.6
5/30/2013 13:00	0.57	1.31	588.9
5/30/2013 13:10	0.58	1.35	604.6
5/30/2013 13:20	0.58	1.35	604.6
5/30/2013 13:30	0.58	1.35	604.6
5/30/2013 13:40	0.58	1.35	604.6
5/30/2013 14:00	0.58	1.35	604.6
5/30/2013 14:20	0.58	1.35	604.6
5/30/2013 14:30	0.58	1.35	604.6
5/30/2013 14:50	0.58	1.35	604.6
5/30/2013 15:20	0.58	1.35	604.6
5/30/2013 15:30	0.58	1.35	604.6
5/30/2013 15:50	0.58	1.35	604.6
5/31/2013 13:30	0.58	1.35	604.6
5/31/2013 13:40	0.58	1.35	604.6
5/31/2013 13:50	0.58	1.35	604.6
5/31/2013 13:53	0.58	1.35	604.6
5/31/2013 14:00	0.58	1.35	604.6
5/31/2013 14:10	0.58	1.35	604.6
5/31/2013 14:20	0.58	1.35	604.6
5/31/2013 14:30	0.58	1.35	604.6
5/31/2013 14:40	0.58	1.35	604.6
5/31/2013 14:50	0.58	1.35	604.6
5/31/2013 15:00	0.58	1.35	604.6
5/31/2013 15:10	0.58	1.35	604.6

5/31/2013 15:20 0.58 1.35 604.6

**Appendix J**

**North Flume Ultrasonic Sensor Data with Flowrates**

### Ultrasonic Sensor Data at North Flume, May 2013

Date, Time	Depth of Flow (ft)	Depth of Flow (in)	Flowrate (cfs)	Flowrate (gpm)
5/1/2013 8:24:05 AM	0.55	6.6	1.24	558.0
5/1/2013 8:24:32 AM	0.55	6.6	1.24	558.0
5/1/2013 8:24:59 AM	0.55	6.6	1.24	558.0
5/1/2013 8:25:26 AM	0.55	6.6	1.24	558.0
5/1/2013 8:25:53 AM	0.55	6.6	1.24	558.0
5/1/2013 8:26:20 AM	0.55	6.6	1.24	558.0
5/1/2013 8:26:47 AM	0.55	6.6	1.24	558.0
5/1/2013 8:27:14 AM	0.55	6.6	1.24	558.0
5/1/2013 8:27:41 AM	0.55	6.6	1.24	558.0
5/1/2013 8:28:08 AM	0.55	6.6	1.24	558.0
5/1/2013 8:28:35 AM	0.55	6.6	1.24	558.0
5/1/2013 8:29:01 AM	0.55	6.6	1.24	558.0
5/1/2013 8:29:27 AM	0.55	6.6	1.24	558.0
5/1/2013 8:29:53 AM	0.55	6.6	1.24	558.0
5/1/2013 8:30:19 AM	0.55	6.6	1.24	558.0
5/1/2013 8:30:46 AM	0.55	6.6	1.24	558.0
5/1/2013 8:31:12 AM	0.54	6.48	1.21	542.7
5/1/2013 8:31:38 AM	0.55	6.6	1.24	558.0
5/1/2013 8:32:04 AM	0.54	6.48	1.21	542.7
5/1/2013 8:32:30 AM	0.54	6.48	1.21	542.7
5/1/2013 8:32:57 AM	0.55	6.6	1.24	558.0
5/1/2013 8:33:23 AM	0.55	6.6	1.24	558.0
5/1/2013 8:33:49 AM	0.55	6.6	1.24	558.0
5/1/2013 8:34:15 AM	0.55	6.6	1.24	558.0
5/1/2013 8:34:41 AM	0.55	6.6	1.24	558.0
5/1/2013 8:35:08 AM	0.55	6.6	1.24	558.0
5/1/2013 8:35:34 AM	0.55	6.6	1.24	558.0
5/1/2013 8:36:00 AM	0.55	6.6	1.24	558.0
5/1/2013 8:36:26 AM	0.55	6.6	1.24	558.0
5/1/2013 8:36:52 AM	0.55	6.6	1.24	558.0
5/1/2013 8:37:19 AM	0.55	6.6	1.24	558.0
5/1/2013 8:37:45 AM	0.54	6.48	1.21	542.7
5/1/2013 8:38:11 AM	0.55	6.6	1.24	558.0
5/1/2013 8:38:37 AM	0.55	6.6	1.24	558.0
5/1/2013 8:39:03 AM	0.54	6.48	1.21	542.7
5/1/2013 8:39:29 AM	0.54	6.48	1.21	542.7
5/1/2013 8:39:56 AM	0.55	6.6	1.24	558.0
5/1/2013 8:40:22 AM	0.55	6.6	1.24	558.0
5/1/2013 8:40:48 AM	0.55	6.6	1.24	558.0
5/1/2013 8:45:01 AM	0.55	6.6	1.24	558.0
5/1/2013 9:00:00 AM	0.55	6.6	1.24	558.0
5/1/2013 9:15:00 AM	0.55	6.6	1.24	558.0
5/1/2013 9:30:00 AM	0.55	6.6	1.24	558.0

5/1/2013 9:45:00 AM	0.55	6.6	1.24	558.0
5/1/2013 10:00:00 AM	0.55	6.6	1.24	558.0
5/1/2013 10:15:00 AM	0.55	6.6	1.24	558.0
5/1/2013 10:30:00 AM	0.55	6.6	1.24	558.0
5/1/2013 10:45:00 AM	0.55	6.6	1.24	558.0
5/1/2013 11:00:00 AM	0.55	6.6	1.24	558.0
5/1/2013 11:15:00 AM	0.55	6.6	1.24	558.0
5/1/2013 11:30:00 AM	0.55	6.6	1.24	558.0
5/1/2013 11:45:00 AM	0.55	6.6	1.24	558.0
5/1/2013 12:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 12:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 12:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 1:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 1:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 1:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 1:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 2:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 2:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 2:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 2:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 3:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 3:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 3:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 3:45:00 PM	0.54	6.48	1.21	542.7
5/1/2013 4:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 4:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 4:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 4:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 5:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 5:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 5:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 5:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 6:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 6:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 6:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 6:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 7:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 7:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 7:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 7:45:00 PM	0.54	6.48	1.21	542.7
5/1/2013 8:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 8:15:00 PM	0.55	6.6	1.24	558.0
5/1/2013 8:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 8:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 9:00:00 PM	0.55	6.6	1.24	558.0
5/1/2013 9:15:00 PM	0.55	6.6	1.24	558.0

5/1/2013 9:30:00 PM	0.55	6.6	1.24	558.0
5/1/2013 9:45:00 PM	0.55	6.6	1.24	558.0
5/1/2013 10:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 7:44:06 AM	0.55	6.6	1.24	558.0
5/2/2013 7:44:38 AM	0.55	6.6	1.24	558.0
5/2/2013 7:45:05 AM	0.55	6.6	1.24	558.0
5/2/2013 7:45:32 AM	0.55	6.6	1.24	558.0
5/2/2013 7:45:59 AM	0.55	6.6	1.24	558.0
5/2/2013 7:46:26 AM	0.55	6.6	1.24	558.0
5/2/2013 7:46:53 AM	0.55	6.6	1.24	558.0
5/2/2013 7:47:20 AM	0.55	6.6	1.24	558.0
5/2/2013 7:47:48 AM	0.55	6.6	1.24	558.0
5/2/2013 7:48:15 AM	0.55	6.6	1.24	558.0
5/2/2013 7:48:41 AM	0.55	6.6	1.24	558.0
5/2/2013 7:49:07 AM	0.55	6.6	1.24	558.0
5/2/2013 7:49:34 AM	0.55	6.6	1.24	558.0
5/2/2013 7:50:00 AM	0.55	6.6	1.24	558.0
5/2/2013 7:50:26 AM	0.55	6.6	1.24	558.0
5/2/2013 7:50:52 AM	0.55	6.6	1.24	558.0
5/2/2013 7:51:19 AM	0.55	6.6	1.24	558.0
5/2/2013 7:51:45 AM	0.55	6.6	1.24	558.0
5/2/2013 7:52:11 AM	0.55	6.6	1.24	558.0
5/2/2013 7:52:38 AM	0.55	6.6	1.24	558.0
5/2/2013 7:53:04 AM	0.55	6.6	1.24	558.0
5/2/2013 7:53:30 AM	0.55	6.6	1.24	558.0
5/2/2013 7:53:57 AM	0.55	6.6	1.24	558.0
5/2/2013 7:54:23 AM	0.55	6.6	1.24	558.0
5/2/2013 7:54:49 AM	0.55	6.6	1.24	558.0
5/2/2013 7:55:15 AM	0.55	6.6	1.24	558.0
5/2/2013 7:55:42 AM	0.55	6.6	1.24	558.0
5/2/2013 7:56:08 AM	0.55	6.6	1.24	558.0
5/2/2013 7:56:34 AM	0.55	6.6	1.24	558.0
5/2/2013 7:57:01 AM	0.55	6.6	1.24	558.0
5/2/2013 7:57:27 AM	0.55	6.6	1.24	558.0
5/2/2013 7:57:53 AM	0.55	6.6	1.24	558.0
5/2/2013 7:58:20 AM	0.55	6.6	1.24	558.0
5/2/2013 7:58:46 AM	0.55	6.6	1.24	558.0
5/2/2013 7:59:12 AM	0.55	6.6	1.24	558.0
5/2/2013 7:59:38 AM	0.55	6.6	1.24	558.0
5/2/2013 8:00:05 AM	0.55	6.6	1.24	558.0
5/2/2013 8:00:36 AM	0.55	6.6	1.24	558.0
5/2/2013 8:01:02 AM	0.54	6.48	1.21	542.7
5/2/2013 8:01:29 AM	0.55	6.6	1.24	558.0
5/2/2013 8:15:00 AM	0.55	6.6	1.24	558.0
5/2/2013 8:30:00 AM	0.55	6.6	1.24	558.0
5/2/2013 8:45:00 AM	0.55	6.6	1.24	558.0
5/2/2013 9:00:00 AM	0.54	6.48	1.21	542.7

5/2/2013 9:15:00 AM	0.55	6.6	1.24	558.0
5/2/2013 9:30:00 AM	0.55	6.6	1.24	558.0
5/2/2013 9:45:00 AM	0.55	6.6	1.24	558.0
5/2/2013 10:00:00 AM	0.55	6.6	1.24	558.0
5/2/2013 10:15:00 AM	0.55	6.6	1.24	558.0
5/2/2013 10:30:00 AM	0.55	6.6	1.24	558.0
5/2/2013 10:45:00 AM	0.55	6.6	1.24	558.0
5/2/2013 11:00:00 AM	0.55	6.6	1.24	558.0
5/2/2013 11:15:00 AM	0.55	6.6	1.24	558.0
5/2/2013 11:30:00 AM	0.55	6.6	1.24	558.0
5/2/2013 11:45:00 AM	0.55	6.6	1.24	558.0
5/2/2013 12:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 12:30:00 PM	0.54	6.48	1.21	542.7
5/2/2013 12:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 1:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 1:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 1:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 1:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 2:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 2:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 2:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 2:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 3:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 3:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 3:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 3:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 4:00:00 PM	0.54	6.48	1.21	542.7
5/2/2013 4:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 4:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 4:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 5:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 5:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 5:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 5:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 6:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 6:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 6:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 6:45:00 PM	0.54	6.48	1.21	542.7
5/2/2013 7:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 7:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 7:30:00 PM	0.54	6.48	1.21	542.7
5/2/2013 7:45:00 PM	0.55	6.6	1.24	558.0
5/2/2013 8:00:00 PM	0.55	6.6	1.24	558.0
5/2/2013 8:15:00 PM	0.55	6.6	1.24	558.0
5/2/2013 8:30:00 PM	0.55	6.6	1.24	558.0
5/2/2013 8:45:00 PM	0.55	6.6	1.24	558.0

5/2/2013 9:00:00 PM	0.55	6.6	1.24	558.0
5/3/2013 7:43:33 AM	0.55	6.6	1.24	558.0
5/3/2013 7:44:06 AM	0.55	6.6	1.24	558.0
5/3/2013 7:44:38 AM	0.55	6.6	1.24	558.0
5/3/2013 7:45:09 AM	0.55	6.6	1.24	558.0
5/3/2013 7:45:36 AM	0.55	6.6	1.24	558.0
5/3/2013 7:46:03 AM	0.55	6.6	1.24	558.0
5/3/2013 7:46:30 AM	0.55	6.6	1.24	558.0
5/3/2013 7:46:57 AM	0.54	6.48	1.21	542.7
5/3/2013 7:47:24 AM	0.55	6.6	1.24	558.0
5/3/2013 7:47:51 AM	0.55	6.6	1.24	558.0
5/3/2013 7:48:19 AM	0.55	6.6	1.24	558.0
5/3/2013 7:48:45 AM	0.55	6.6	1.24	558.0
5/3/2013 7:49:11 AM	0.55	6.6	1.24	558.0
5/3/2013 7:49:37 AM	0.55	6.6	1.24	558.0
5/3/2013 7:50:04 AM	0.55	6.6	1.24	558.0
5/3/2013 7:50:30 AM	0.55	6.6	1.24	558.0
5/3/2013 7:50:56 AM	0.55	6.6	1.24	558.0
5/3/2013 7:51:23 AM	0.55	6.6	1.24	558.0
5/3/2013 7:51:49 AM	0.55	6.6	1.24	558.0
5/3/2013 7:52:15 AM	0.55	6.6	1.24	558.0
5/3/2013 7:52:42 AM	0.55	6.6	1.24	558.0
5/3/2013 7:53:08 AM	0.55	6.6	1.24	558.0
5/3/2013 7:53:34 AM	0.54	6.48	1.21	542.7
5/3/2013 7:54:00 AM	0.55	6.6	1.24	558.0
5/3/2013 7:54:27 AM	0.55	6.6	1.24	558.0
5/3/2013 7:54:53 AM	0.55	6.6	1.24	558.0
5/3/2013 7:55:19 AM	0.55	6.6	1.24	558.0
5/3/2013 7:55:46 AM	0.55	6.6	1.24	558.0
5/3/2013 7:56:12 AM	0.55	6.6	1.24	558.0
5/3/2013 7:56:38 AM	0.55	6.6	1.24	558.0
5/3/2013 7:57:13 AM	0.55	6.6	1.24	558.0
5/3/2013 7:57:44 AM	0.55	6.6	1.24	558.0
5/3/2013 7:58:15 AM	0.54	6.48	1.21	542.7
5/3/2013 7:58:46 AM	0.55	6.6	1.24	558.0
5/3/2013 7:59:18 AM	0.55	6.6	1.24	558.0
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5/3/2013 8:03:02 AM	0.55	6.6	1.24	558.0
5/3/2013 8:03:34 AM	0.55	6.6	1.24	558.0
5/3/2013 8:04:06 AM	0.55	6.6	1.24	558.0
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5/3/2013 8:30:00 AM	0.54	6.48	1.21	542.7

5/3/2013 8:45:00 AM	0.55	6.6	1.24	558.0
5/3/2013 9:00:00 AM	0.55	6.6	1.24	558.0
5/3/2013 9:15:00 AM	0.55	6.6	1.24	558.0
5/3/2013 9:30:00 AM	0.54	6.48	1.21	542.7
5/3/2013 9:45:00 AM	0.54	6.48	1.21	542.7
5/3/2013 10:00:00 AM	0.55	6.6	1.24	558.0
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5/3/2013 10:30:00 AM	0.55	6.6	1.24	558.0
5/3/2013 10:45:00 AM	0.55	6.6	1.24	558.0
5/3/2013 11:00:00 AM	0.55	6.6	1.24	558.0
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5/3/2013 11:30:00 AM	0.55	6.6	1.24	558.0
5/3/2013 11:45:00 AM	0.55	6.6	1.24	558.0
5/3/2013 12:00:00 PM	0.55	6.6	1.24	558.0
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5/3/2013 1:30:00 PM	0.55	6.6	1.24	558.0
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5/3/2013 7:30:00 PM	0.55	6.6	1.24	558.0
5/3/2013 7:45:00 PM	0.55	6.6	1.24	558.0
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5/5/2013 9:39:42 AM	0.55	6.6	1.24	558.0
5/5/2013 9:40:08 AM	0.55	6.6	1.24	558.0
5/5/2013 9:40:34 AM	0.55	6.6	1.24	558.0
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5/7/2013 8:17:39 AM	0.55	6.6	1.24	558.0
5/7/2013 8:18:06 AM	0.55	6.6	1.24	558.0
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5/7/2013 8:48:52 AM	0.54	6.48	1.21	542.7
5/7/2013 9:12:36 AM	0.55	6.6	1.24	558.0
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5/7/2013 9:28:18 AM	0.55	6.6	1.24	558.0
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5/7/2013 9:55:21 AM	0.55	6.6	1.24	558.0
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5/7/2013 10:22:20 AM	0.55	6.6	1.24	558.0
5/7/2013 10:22:46 AM	0.55	6.6	1.24	558.0
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5/8/2013 10:31:23 AM	0.55	6.6	1.24	558.0
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5/8/2013 10:53:05 AM	0.55	6.6	1.24	558.0
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5/8/2013 10:53:58 AM	0.55	6.6	1.24	558.0
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5/8/2013 1:19:02 PM	0.55	6.6	1.24	558.0
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5/8/2013 1:23:18 PM	0.55	6.6	1.24	558.0
5/8/2013 1:24:58 PM	0.55	6.6	1.24	558.0
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5/8/2013 1:26:43 PM	0.55	6.6	1.24	558.0
5/8/2013 1:28:59 PM	0.55	6.6	1.24	558.0
5/8/2013 1:29:34 PM	0.55	6.6	1.24	558.0
5/8/2013 1:30:10 PM	0.55	6.6	1.24	558.0
5/8/2013 1:30:46 PM	0.55	6.6	1.24	558.0
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5/9/2013 2:45:40 PM	0.55	6.6	1.24	558.0
5/9/2013 2:46:08 PM	0.55	6.6	1.24	558.0
5/9/2013 2:46:35 PM	0.55	6.6	1.24	558.0
5/9/2013 2:47:02 PM	0.55	6.6	1.24	558.0
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5/9/2013 2:50:23 PM	0.55	6.6	1.24	558.0
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5/10/2013 7:39:24 AM	0.55	6.6	1.24	558.0
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5/10/2013 7:54:00 AM	0.55	6.6	1.24	558.0
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5/10/2013 7:55:09 AM	0.55	6.6	1.24	558.0
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5/10/2013 7:56:45 AM	0.55	6.6	1.24	558.0
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5/10/2013 7:57:49 AM	0.55	6.6	1.24	558.0
5/10/2013 7:58:21 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:00:10 AM	0.55	6.6	1.24	558.0
5/10/2013 8:00:37 AM	0.54	6.48	1.21	542.7
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5/10/2013 8:01:59 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:02:52 AM	0.55	6.6	1.24	558.0
5/10/2013 8:03:18 AM	0.55	6.6	1.24	558.0
5/10/2013 8:03:45 AM	0.55	6.6	1.24	558.0
5/10/2013 8:04:11 AM	0.55	6.6	1.24	558.0
5/10/2013 8:04:38 AM	0.55	6.6	1.24	558.0
5/10/2013 8:05:04 AM	0.55	6.6	1.24	558.0
5/10/2013 8:05:31 AM	0.55	6.6	1.24	558.0
5/10/2013 8:05:57 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:17:54 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:20:07 AM	0.55	6.6	1.24	558.0
5/10/2013 8:20:33 AM	0.55	6.6	1.24	558.0
5/10/2013 8:21:00 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:21:53 AM	0.55	6.6	1.24	558.0
5/10/2013 8:22:19 AM	0.55	6.6	1.24	558.0
5/10/2013 8:22:46 AM	0.55	6.6	1.24	558.0
5/10/2013 8:23:12 AM	0.55	6.6	1.24	558.0
5/10/2013 8:23:39 AM	0.55	6.6	1.24	558.0
5/10/2013 8:24:05 AM	0.55	6.6	1.24	558.0
5/10/2013 8:24:32 AM	0.55	6.6	1.24	558.0
5/10/2013 8:24:59 AM	0.55	6.6	1.24	558.0
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5/10/2013 8:26:18 AM	0.55	6.6	1.24	558.0
5/10/2013 8:26:45 AM	0.55	6.6	1.24	558.0
5/10/2013 8:27:11 AM	0.55	6.6	1.24	558.0
5/10/2013 8:27:38 AM	0.55	6.6	1.24	558.0
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5/15/2013 10:41:24 AM	0.55	6.6	1.24	558.0
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5/15/2013 10:42:18 AM	0.55	6.6	1.24	558.0
5/15/2013 10:42:45 AM	0.55	6.6	1.24	558.0
5/15/2013 10:48:31 AM	0.55	6.6	1.24	558.0
5/15/2013 10:48:57 AM	0.55	6.6	1.24	558.0
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5/15/2013 10:50:57 AM	0.55	6.6	1.24	558.0
5/15/2013 10:51:24 AM	0.55	6.6	1.24	558.0

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5/15/2013 10:52:18 AM	0.55	6.6	1.24	558.0
5/15/2013 10:52:45 AM	0.55	6.6	1.24	558.0
5/15/2013 10:53:12 AM	0.55	6.6	1.24	558.0
5/15/2013 10:53:39 AM	0.55	6.6	1.24	558.0
5/15/2013 10:54:06 AM	0.55	6.6	1.24	558.0
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5/15/2013 10:56:47 AM	0.55	6.6	1.24	558.0
5/15/2013 10:57:14 AM	0.55	6.6	1.24	558.0
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5/15/2013 12:00:00 PM	0.55	6.6	1.24	558.0
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5/15/2013 12:30:00 PM	0.55	6.6	1.24	558.0
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5/15/2013 2:15:00 PM	0.55	6.6	1.24	558.0

5/15/2013 2:30:00 PM	0.55	6.6	1.24	558.0
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5/15/2013 3:15:00 PM	0.54	6.48	1.21	542.7
5/15/2013 3:30:00 PM	0.55	6.6	1.24	558.0
5/15/2013 3:45:00 PM	0.55	6.6	1.24	558.0
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5/15/2013 4:30:00 PM	0.54	6.48	1.21	542.7
5/15/2013 4:45:00 PM	0.55	6.6	1.24	558.0
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5/18/2013 9:01:20 AM	0.55	6.6	1.24	558.0
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5/18/2013 10:42:01 AM	0.54	6.48	1.21	542.7
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5/18/2013 6:30:00 PM	0.54	6.48	1.21	542.7
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5/20/2013 10:39:07 AM	0.54	6.48	1.21	542.7
5/20/2013 10:39:35 AM	0.55	6.6	1.24	558.0
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5/20/2013 10:45:10 AM	0.55	6.6	1.24	558.0
5/20/2013 10:45:38 AM	0.55	6.6	1.24	558.0
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5/20/2013 10:46:34 AM	0.55	6.6	1.24	558.0
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5/20/2013 10:48:14 AM	0.54	6.48	1.21	542.7
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5/20/2013 11:21:25 AM	0.55	6.6	1.24	558.0
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5/20/2013 11:22:19 AM	0.55	6.6	1.24	558.0
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5/20/2013 11:31:38 AM	0.55	6.6	1.24	558.0
5/20/2013 11:32:05 AM	0.55	6.6	1.24	558.0
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5/20/2013 11:33:53 AM	0.55	6.6	1.24	558.0
5/20/2013 11:34:28 AM	0.55	6.6	1.24	558.0
5/20/2013 11:34:55 AM	0.55	6.6	1.24	558.0
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5/20/2013 11:35:49 AM	0.54	6.48	1.21	542.7
5/20/2013 11:36:23 AM	0.55	6.6	1.24	558.0
5/20/2013 11:36:50 AM	0.55	6.6	1.24	558.0
5/20/2013 11:37:17 AM	0.55	6.6	1.24	558.0
5/20/2013 11:37:44 AM	0.54	6.48	1.21	542.7
5/20/2013 11:38:15 AM	0.54	6.48	1.21	542.7
5/20/2013 11:38:47 AM	0.55	6.6	1.24	558.0
5/20/2013 11:39:14 AM	0.55	6.6	1.24	558.0
5/20/2013 11:39:48 AM	0.55	6.6	1.24	558.0
5/20/2013 11:40:22 AM	0.55	6.6	1.24	558.0
5/20/2013 11:40:49 AM	0.55	6.6	1.24	558.0
5/20/2013 11:41:16 AM	0.54	6.48	1.21	542.7
5/20/2013 11:41:55 AM	0.55	6.6	1.24	558.0
5/20/2013 11:42:30 AM	0.55	6.6	1.24	558.0
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5/20/2013 11:43:57 AM	0.55	6.6	1.24	558.0
5/20/2013 11:44:27 AM	0.55	6.6	1.24	558.0
5/20/2013 11:44:55 AM	0.55	6.6	1.24	558.0
5/20/2013 11:45:31 AM	0.55	6.6	1.24	558.0
5/20/2013 11:45:58 AM	0.55	6.6	1.24	558.0
5/20/2013 11:46:31 AM	0.55	6.6	1.24	558.0

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5/20/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/20/2013 12:30:00 PM	0.55	6.6	1.24	558.0
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5/25/2013 8:15:08 AM	0.54	6.48	1.21	542.7
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5/25/2013 8:16:32 AM	0.55	6.6	1.24	558.0
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5/25/2013 8:47:04 AM	0.55	6.6	1.24	558.0
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5/27/2013 9:32:51 AM	0.55	6.6	1.24	558.0
5/27/2013 9:33:19 AM	0.55	6.6	1.24	558.0
5/27/2013 9:33:47 AM	0.55	6.6	1.24	558.0
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5/27/2013 9:35:11 AM	0.55	6.6	1.24	558.0
5/27/2013 9:35:39 AM	0.55	6.6	1.24	558.0
5/27/2013 9:36:06 AM	0.55	6.6	1.24	558.0
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5/28/2013 8:31:08 AM	0.55	6.6	1.24	558.0
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5/28/2013 9:20:27 AM	0.55	6.6	1.24	558.0
5/28/2013 9:32:12 AM	0.55	6.6	1.24	558.0
5/28/2013 11:15:23 AM	0.55	6.6	1.24	558.0
5/28/2013 11:16:38 AM	0.55	6.6	1.24	558.0
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5/28/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/28/2013 12:30:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 1:15:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 1:45:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 7:30:00 PM	0.55	6.6	1.24	558.0

5/28/2013 7:45:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 8:15:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 8:45:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 9:15:00 PM	0.55	6.6	1.24	558.0
5/28/2013 9:30:00 PM	0.55	6.6	1.24	558.0
5/28/2013 9:45:00 PM	0.55	6.6	1.24	558.0
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5/28/2013 10:15:00 PM	0.55	6.6	1.24	558.0
5/28/2013 10:30:00 PM	0.55	6.6	1.24	558.0
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5/29/2013 10:11:22 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:12:17 AM	0.55	6.6	1.24	558.0
5/29/2013 10:12:44 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:13:40 AM	0.55	6.6	1.24	558.0
5/29/2013 10:14:07 AM	0.55	6.6	1.24	558.0
5/29/2013 10:14:35 AM	0.55	6.6	1.24	558.0
5/29/2013 10:15:03 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:15:58 AM	0.55	6.6	1.24	558.0
5/29/2013 10:23:09 AM	0.55	6.6	1.24	558.0
5/29/2013 10:26:50 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:28:12 AM	0.55	6.6	1.24	558.0
5/29/2013 10:28:40 AM	0.55	6.6	1.24	558.0
5/29/2013 10:29:08 AM	0.55	6.6	1.24	558.0
5/29/2013 10:29:35 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:31:26 AM	0.55	6.6	1.24	558.0
5/29/2013 10:31:53 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:33:16 AM	0.55	6.6	1.24	558.0
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5/29/2013 10:48:26 AM	0.55	6.6	1.24	558.0
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5/29/2013 11:30:00 AM	0.55	6.6	1.24	558.0
5/29/2013 11:45:00 AM	0.55	6.6	1.24	558.0
5/29/2013 12:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 12:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 12:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 1:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 1:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 1:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 1:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 2:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 2:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 2:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 2:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 3:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 3:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 3:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 3:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 4:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 4:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 4:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 4:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 5:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 5:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 5:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 5:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 6:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 6:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 6:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 6:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 7:00:00 PM	0.55	6.6	1.24	558.0

5/29/2013 7:15:00 PM	0.54	6.48	1.21	542.7
5/29/2013 7:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 7:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 8:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 8:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 8:30:00 PM	0.54	6.48	1.21	542.7
5/29/2013 8:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 9:00:00 PM	0.55	6.6	1.24	558.0
5/29/2013 9:15:00 PM	0.55	6.6	1.24	558.0
5/29/2013 9:30:00 PM	0.55	6.6	1.24	558.0
5/29/2013 9:45:00 PM	0.55	6.6	1.24	558.0
5/29/2013 10:00:00 PM	0.55	6.6	1.24	558.0
5/30/2013 10:21:22 AM	0.55	6.6	1.24	558.0
5/30/2013 10:21:50 AM	0.55	6.6	1.24	558.0
5/30/2013 10:22:19 AM	0.55	6.6	1.24	558.0
5/30/2013 10:22:47 AM	0.55	6.6	1.24	558.0
5/30/2013 10:23:16 AM	0.55	6.6	1.24	558.0
5/30/2013 10:23:44 AM	0.55	6.6	1.24	558.0
5/30/2013 10:24:13 AM	0.55	6.6	1.24	558.0
5/30/2013 10:24:42 AM	0.55	6.6	1.24	558.0
5/30/2013 10:25:10 AM	0.55	6.6	1.24	558.0
5/30/2013 10:25:39 AM	0.55	6.6	1.24	558.0
5/30/2013 10:26:07 AM	0.55	6.6	1.24	558.0
5/30/2013 10:26:36 AM	0.55	6.6	1.24	558.0
5/30/2013 10:27:05 AM	0.55	6.6	1.24	558.0
5/30/2013 10:27:32 AM	0.55	6.6	1.24	558.0
5/30/2013 10:28:00 AM	0.55	6.6	1.24	558.0
5/30/2013 10:28:28 AM	0.55	6.6	1.24	558.0
5/30/2013 10:28:55 AM	0.55	6.6	1.24	558.0
5/30/2013 10:29:23 AM	0.55	6.6	1.24	558.0
5/30/2013 10:29:51 AM	0.55	6.6	1.24	558.0
5/30/2013 10:30:19 AM	0.55	6.6	1.24	558.0
5/30/2013 10:30:46 AM	0.55	6.6	1.24	558.0
5/30/2013 10:32:35 AM	0.55	6.6	1.24	558.0
5/30/2013 10:33:02 AM	0.55	6.6	1.24	558.0
5/30/2013 10:33:30 AM	0.55	6.6	1.24	558.0
5/30/2013 10:33:58 AM	0.54	6.48	1.21	542.7
5/30/2013 10:34:25 AM	0.55	6.6	1.24	558.0
5/30/2013 10:34:53 AM	0.55	6.6	1.24	558.0
5/30/2013 10:35:21 AM	0.55	6.6	1.24	558.0
5/30/2013 10:35:49 AM	0.55	6.6	1.24	558.0
5/30/2013 10:36:16 AM	0.55	6.6	1.24	558.0
5/30/2013 10:36:44 AM	0.55	6.6	1.24	558.0
5/30/2013 10:37:12 AM	0.55	6.6	1.24	558.0
5/30/2013 10:37:40 AM	0.55	6.6	1.24	558.0
5/30/2013 10:38:07 AM	0.55	6.6	1.24	558.0
5/30/2013 10:38:35 AM	0.55	6.6	1.24	558.0

5/30/2013 10:39:03 AM	0.55	6.6	1.24	558.0
5/30/2013 10:39:31 AM	0.55	6.6	1.24	558.0
5/30/2013 10:39:58 AM	0.54	6.48	1.21	542.7
5/30/2013 10:40:26 AM	0.55	6.6	1.24	558.0
5/30/2013 10:40:54 AM	0.55	6.6	1.24	558.0
5/30/2013 10:41:22 AM	0.55	6.6	1.24	558.0
5/30/2013 10:41:49 AM	0.55	6.6	1.24	558.0
5/30/2013 10:42:17 AM	0.55	6.6	1.24	558.0
5/30/2013 10:42:45 AM	0.55	6.6	1.24	558.0
5/30/2013 10:43:13 AM	0.55	6.6	1.24	558.0
5/30/2013 10:43:40 AM	0.55	6.6	1.24	558.0
5/30/2013 10:44:08 AM	0.55	6.6	1.24	558.0
5/30/2013 10:44:36 AM	0.55	6.6	1.24	558.0
5/30/2013 10:45:03 AM	0.55	6.6	1.24	558.0
5/30/2013 10:45:31 AM	0.55	6.6	1.24	558.0
5/30/2013 10:45:59 AM	0.55	6.6	1.24	558.0
5/30/2013 11:00:00 AM	0.55	6.6	1.24	558.0
5/30/2013 11:15:00 AM	0.55	6.6	1.24	558.0
5/30/2013 11:30:00 AM	0.55	6.6	1.24	558.0
5/30/2013 11:45:00 AM	0.55	6.6	1.24	558.0
5/30/2013 12:00:00 PM	0.55	6.6	1.24	558.0
5/30/2013 12:15:00 PM	0.55	6.6	1.24	558.0
5/30/2013 12:30:00 PM	0.55	6.6	1.24	558.0
5/30/2013 12:45:00 PM	0.55	6.6	1.24	558.0
5/30/2013 1:00:01 PM	0.55	6.6	1.24	558.0
5/30/2013 1:15:00 PM	0.55	6.6	1.24	558.0
5/30/2013 1:30:48 PM	0.55	6.6	1.24	558.0
5/30/2013 1:45:05 PM	0.55	6.6	1.24	558.0
5/30/2013 2:00:47 PM	0.55	6.6	1.24	558.0
5/30/2013 2:15:38 PM	0.55	6.6	1.24	558.0
5/30/2013 2:30:00 PM	0.55	6.6	1.24	558.0
5/30/2013 2:46:51 PM	0.55	6.6	1.24	558.0
5/30/2013 3:12:52 PM	0.55	6.6	1.24	558.0
5/30/2013 3:22:06 PM	0.55	6.6	1.24	558.0
5/30/2013 3:41:44 PM	0.55	6.6	1.24	558.0
5/30/2013 3:52:58 PM	0.55	6.6	1.24	558.0
5/31/2013 1:23:48 PM	0.55	6.6	1.24	558.0
5/31/2013 1:24:16 PM	0.55	6.6	1.24	558.0
5/31/2013 1:24:45 PM	0.55	6.6	1.24	558.0
5/31/2013 1:25:13 PM	0.55	6.6	1.24	558.0
5/31/2013 1:25:42 PM	0.55	6.6	1.24	558.0
5/31/2013 1:26:10 PM	0.55	6.6	1.24	558.0
5/31/2013 1:26:39 PM	0.55	6.6	1.24	558.0
5/31/2013 1:27:08 PM	0.55	6.6	1.24	558.0
5/31/2013 1:27:36 PM	0.54	6.48	1.21	542.7
5/31/2013 1:28:05 PM	0.55	6.6	1.24	558.0
5/31/2013 1:28:33 PM	0.55	6.6	1.24	558.0

5/31/2013 1:29:02 PM	0.54	6.48	1.21	542.7
5/31/2013 1:29:45 PM	0.55	6.6	1.24	558.0
5/31/2013 1:30:13 PM	0.55	6.6	1.24	558.0
5/31/2013 1:30:42 PM	0.55	6.6	1.24	558.0
5/31/2013 1:31:10 PM	0.54	6.48	1.21	542.7
5/31/2013 1:31:39 PM	0.55	6.6	1.24	558.0
5/31/2013 1:32:07 PM	0.55	6.6	1.24	558.0
5/31/2013 1:32:36 PM	0.55	6.6	1.24	558.0
5/31/2013 1:33:05 PM	0.55	6.6	1.24	558.0
5/31/2013 1:33:33 PM	0.55	6.6	1.24	558.0
5/31/2013 1:34:02 PM	0.55	6.6	1.24	558.0
5/31/2013 1:34:30 PM	0.55	6.6	1.24	558.0
5/31/2013 1:34:58 PM	0.55	6.6	1.24	558.0
5/31/2013 1:35:26 PM	0.55	6.6	1.24	558.0
5/31/2013 1:35:54 PM	0.55	6.6	1.24	558.0
5/31/2013 1:36:21 PM	0.55	6.6	1.24	558.0
5/31/2013 1:36:49 PM	0.55	6.6	1.24	558.0
5/31/2013 1:37:17 PM	0.55	6.6	1.24	558.0
5/31/2013 1:37:45 PM	0.55	6.6	1.24	558.0
5/31/2013 1:38:12 PM	0.55	6.6	1.24	558.0
5/31/2013 1:38:40 PM	0.55	6.6	1.24	558.0
5/31/2013 1:39:08 PM	0.55	6.6	1.24	558.0
5/31/2013 1:39:36 PM	0.55	6.6	1.24	558.0
5/31/2013 1:40:03 PM	0.55	6.6	1.24	558.0
5/31/2013 1:40:31 PM	0.55	6.6	1.24	558.0
5/31/2013 1:40:59 PM	0.55	6.6	1.24	558.0
5/31/2013 1:41:26 PM	0.55	6.6	1.24	558.0
5/31/2013 1:41:54 PM	0.55	6.6	1.24	558.0
5/31/2013 1:42:22 PM	0.55	6.6	1.24	558.0
5/31/2013 1:42:50 PM	0.54	6.48	1.21	542.7
5/31/2013 1:43:17 PM	0.55	6.6	1.24	558.0
5/31/2013 1:43:45 PM	0.55	6.6	1.24	558.0
5/31/2013 1:44:13 PM	0.55	6.6	1.24	558.0
5/31/2013 1:44:41 PM	0.55	6.6	1.24	558.0
5/31/2013 1:45:08 PM	0.55	6.6	1.24	558.0
5/31/2013 1:45:36 PM	0.55	6.6	1.24	558.0
5/31/2013 1:46:04 PM	0.55	6.6	1.24	558.0
5/31/2013 1:46:32 PM	0.55	6.6	1.24	558.0
5/31/2013 1:46:59 PM	0.55	6.6	1.24	558.0
5/31/2013 1:47:27 PM	0.55	6.6	1.24	558.0
5/31/2013 1:47:55 PM	0.55	6.6	1.24	558.0
5/31/2013 1:48:23 PM	0.55	6.6	1.24	558.0
5/31/2013 1:48:50 PM	0.55	6.6	1.24	558.0
5/31/2013 1:49:18 PM	0.55	6.6	1.24	558.0
5/31/2013 1:49:46 PM	0.55	6.6	1.24	558.0
5/31/2013 1:50:14 PM	0.55	6.6	1.24	558.0
5/31/2013 1:50:41 PM	0.55	6.6	1.24	558.0

5/31/2013 1:51:09 PM	0.55	6.6	1.24	558.0
5/31/2013 1:51:37 PM	0.55	6.6	1.24	558.0
5/31/2013 1:52:05 PM	0.55	6.6	1.24	558.0
5/31/2013 1:52:32 PM	0.55	6.6	1.24	558.0
5/31/2013 1:53:00 PM	0.55	6.6	1.24	558.0
5/31/2013 1:53:28 PM	0.55	6.6	1.24	558.0
5/31/2013 1:53:56 PM	0.55	6.6	1.24	558.0
5/31/2013 1:54:23 PM	0.55	6.6	1.24	558.0
5/31/2013 1:54:51 PM	0.55	6.6	1.24	558.0
5/31/2013 1:55:19 PM	0.55	6.6	1.24	558.0
5/31/2013 1:55:47 PM	0.55	6.6	1.24	558.0
5/31/2013 1:56:14 PM	0.55	6.6	1.24	558.0
5/31/2013 1:56:42 PM	0.55	6.6	1.24	558.0
5/31/2013 1:57:10 PM	0.55	6.6	1.24	558.0
5/31/2013 1:57:38 PM	0.55	6.6	1.24	558.0
5/31/2013 1:58:05 PM	0.55	6.6	1.24	558.0
5/31/2013 1:58:33 PM	0.55	6.6	1.24	558.0
5/31/2013 1:59:01 PM	0.55	6.6	1.24	558.0
5/31/2013 1:59:29 PM	0.55	6.6	1.24	558.0
5/31/2013 1:59:56 PM	0.55	6.6	1.24	558.0
5/31/2013 2:00:24 PM	0.55	6.6	1.24	558.0
5/31/2013 2:01:02 PM	0.55	6.6	1.24	558.0
5/31/2013 2:01:30 PM	0.55	6.6	1.24	558.0
5/31/2013 2:01:57 PM	0.54	6.48	1.21	542.7
5/31/2013 2:02:25 PM	0.55	6.6	1.24	558.0
5/31/2013 2:02:53 PM	0.55	6.6	1.24	558.0
5/31/2013 2:03:21 PM	0.55	6.6	1.24	558.0
5/31/2013 2:03:48 PM	0.55	6.6	1.24	558.0
5/31/2013 2:04:16 PM	0.55	6.6	1.24	558.0
5/31/2013 2:04:44 PM	0.55	6.6	1.24	558.0
5/31/2013 2:05:11 PM	0.55	6.6	1.24	558.0
5/31/2013 2:15:07 PM	0.55	6.6	1.24	558.0
5/31/2013 2:30:00 PM	0.55	6.6	1.24	558.0
5/31/2013 2:45:00 PM	0.55	6.6	1.24	558.0
5/31/2013 3:00:00 PM	0.55	6.6	1.24	558.0
5/31/2013 3:15:00 PM	0.55	6.6	1.24	558.0

**Appendix K**

**South Flume Orpheus Mini Data with Flowrates**

**OTT Opheus Mini Data at South Flume, May 2013**

Date	Time	Depth from top of flume to water (ft)	Depth of Flume Total (ft)	Depth of Flow (ft)	Flowrate (cfs)	Flowrate (gpm)
5/01/2013	12:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	1:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	2:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	9:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/01/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/01/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/01/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/01/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/01/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/01/2013	4:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	5:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	6:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	7:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	8:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	9:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	10:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/01/2013	11:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/02/2013	12:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/02/2013	1:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/02/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/02/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/02/2013	12:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	1:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	2:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	6:00:00 PM	2.12	2.5	0.38	0.71	319.2

5/02/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/02/2013	11:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/03/2013	12:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/03/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/03/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/03/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/03/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/03/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/03/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/03/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/03/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/03/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/03/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/04/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/04/2013	2:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/04/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	5:00:00 PM	2.10	2.5	0.40	0.77	344.9

5/04/2013	6:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	8:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	9:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	10:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/04/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	12:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	1:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	2:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/05/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/05/2013	6:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	8:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	9:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	10:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/05/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/06/2013	12:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	1:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	2:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/06/2013	10:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/06/2013	11:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/06/2013	12:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/06/2013	1:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/06/2013	2:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/06/2013	3:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/06/2013	4:00:00 PM	2.07	2.5	0.43	0.86	384.7

5/06/2013	5:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/06/2013	6:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/06/2013	7:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/06/2013	8:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/06/2013	9:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/06/2013	10:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/06/2013	11:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	12:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	1:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	2:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	3:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	4:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	5:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	6:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	7:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	8:00:00 AM	2.06	2.5	0.44	0.89	398.3
5/07/2013	9:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	10:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	11:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/07/2013	12:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	1:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	2:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	3:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	4:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/07/2013	5:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/07/2013	6:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/07/2013	7:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/07/2013	8:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/07/2013	9:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/07/2013	10:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/07/2013	11:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/08/2013	12:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/08/2013	1:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/08/2013	2:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/08/2013	3:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/08/2013	4:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/08/2013	5:00:00 AM	2.07	2.5	0.43	0.86	384.7
5/08/2013	6:00:00 AM	2.05	2.5	0.45	0.92	412.1
5/08/2013	7:00:00 AM	2.05	2.5	0.45	0.92	412.1
5/08/2013	8:00:00 AM	2.04	2.5	0.46	0.95	426.0
5/08/2013	9:00:00 AM	2.05	2.5	0.45	0.92	412.1
5/08/2013	10:00:00 AM	2.05	2.5	0.45	0.92	412.1
5/08/2013	11:00:00 AM	2.05	2.5	0.45	0.92	412.1
5/08/2013	12:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	1:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	2:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	3:00:00 PM	2.05	2.5	0.45	0.92	412.1

5/08/2013	4:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	5:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	6:00:00 PM	2.05	2.5	0.45	0.92	412.1
5/08/2013	7:00:00 PM	2.06	2.5	0.44	0.89	398.3
5/08/2013	8:00:00 PM	2.06	2.5	0.44	0.89	398.3
5/08/2013	9:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/08/2013	10:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/08/2013	11:00:00 PM	2.07	2.5	0.43	0.86	384.7
5/09/2013	12:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/09/2013	1:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/09/2013	2:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/09/2013	3:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/09/2013	4:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	5:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	6:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	7:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	8:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	9:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	10:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	11:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/09/2013	12:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	1:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	2:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	3:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	4:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	5:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/09/2013	6:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/09/2013	7:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/09/2013	8:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/09/2013	9:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/09/2013	10:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/09/2013	11:00:00 PM	2.08	2.5	0.42	0.83	371.3
5/10/2013	12:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/10/2013	1:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/10/2013	2:00:00 AM	2.08	2.5	0.42	0.83	371.3
5/10/2013	3:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	4:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	5:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	6:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	7:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	8:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	9:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/10/2013	11:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/10/2013	12:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/10/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9

5/10/2013	3:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/10/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	5:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	6:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	8:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	9:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	10:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/10/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/11/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	5:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/11/2013	6:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/11/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	11:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/11/2013	12:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/11/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/11/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/11/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/11/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/12/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/12/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/12/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/12/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/12/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/12/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/12/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9

5/12/2013	2:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	7:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/12/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/12/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	11:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/13/2013	12:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	1:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	2:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/13/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/13/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/14/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/14/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/14/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9

5/14/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/14/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/14/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/14/2013	4:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	5:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	6:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	7:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	8:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	9:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	10:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/14/2013	11:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/15/2013	12:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	1:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	2:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	3:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	4:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	5:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/15/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/15/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	2:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/15/2013	3:00:00 PM	2.09	2.5	0.41	0.80	358.0
5/15/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	5:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	6:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	8:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/15/2013	10:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/15/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/16/2013	12:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/16/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/16/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/16/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9

5/16/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/16/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/16/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/16/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/16/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/17/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/17/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/17/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/17/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/17/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/17/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/17/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/17/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/17/2013	2:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/17/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/17/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/17/2013	5:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	6:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	7:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	8:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	9:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	10:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/17/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/18/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/18/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/18/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/18/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/18/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/18/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/18/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/18/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/18/2013	9:00:00 AM	2.09	2.5	0.41	0.80	358.0
5/18/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9

5/18/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/18/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/18/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/18/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/18/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/18/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/18/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/18/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/19/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/19/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/19/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/19/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/19/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	1:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	4:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	5:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	6:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	7:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	8:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	9:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	10:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/19/2013	11:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/20/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/20/2013	1:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	2:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	3:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	4:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	5:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	6:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	7:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	8:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	9:00:00 AM	2.10	2.5	0.40	0.77	344.9

5/20/2013	10:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/20/2013	12:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/20/2013	1:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	2:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/20/2013	3:00:00 PM	2.10	2.5	0.40	0.77	344.9
5/20/2013	4:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	5:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	6:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	7:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	8:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	9:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	10:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/20/2013	11:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/21/2013	12:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	1:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	3:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	4:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	5:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	6:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/21/2013	11:00:00 AM	2.10	2.5	0.40	0.77	344.9
5/21/2013	12:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/21/2013	1:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/21/2013	2:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/21/2013	3:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/21/2013	4:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	5:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	6:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	7:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	8:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	9:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	10:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/21/2013	11:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/22/2013	12:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	1:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	2:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	3:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	4:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	5:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	6:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/22/2013	7:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/22/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0

5/22/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/22/2013	10:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/22/2013	11:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/22/2013	12:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/22/2013	1:00:00 PM	2.11	2.5	0.39	0.74	332.0
5/22/2013	2:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/22/2013	3:00:00 PM	2.12	2.5	0.38	0.71	319.2
5/22/2013	4:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	5:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	6:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	7:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	8:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	9:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	10:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/22/2013	11:00:00 PM	2.13	2.5	0.37	0.68	306.6
5/23/2013	12:00:00 AM	2.13	2.5	0.37	0.68	306.6
5/23/2013	1:00:00 AM	2.13	2.5	0.37	0.68	306.6
5/23/2013	2:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	3:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	4:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	5:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	6:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	7:00:00 AM	2.12	2.5	0.38	0.71	319.2
5/23/2013	8:00:00 AM	2.11	2.5	0.39	0.74	332.0
5/23/2013	9:00:00 AM	2.11	2.5	0.39	0.74	332.0
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5/23/2013	12:00:00 PM	2.12	2.5	0.38	0.71	319.2
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5/29/2013	2:00:00 AM	2.11	2.5	0.39	0.74	332.0
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5/31/2013	2:00:00 PM	2.14	2.5	0.36	0.66	294.1
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5/31/2013	10:00:00 PM	2.15	2.5	0.35	0.63	281.9
5/31/2013	11:00:00 PM	2.14	2.5	0.36	0.66	294.1

## **Appendix L**

### **Technical Standard Operating Procedure – Collection of Cross-Channel Surface Water Samples**

**TECHNICAL STANDARD OPERATING PROCEDURE No.**  
Collection of Cross-Channel Surface Water Samples

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## **TECHNICAL STANDARD OPERATING PROCEDURE No.**

### **Collection of Cross-Channel Surface Water Samples**

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#### **1.0 PURPOSE**

This standard operating procedure (SOP) describes the requirements and process for collecting surface water samples from multiple locations across the channel of a wadeable stream. Collecting multiple samples along a transect perpendicular to the stream flow will provide information on the homogeneity of water chemistry across the channel (if samples are analyzed independently) or will provide a representative sample of stream water chemistry (if individual samples are composited before analysis). This procedure can be used wherever it is possible to wade completely across the channel. Where the water is too deep for wading, these procedures may be modified to be used from a stable boat. Samples collected using this method may be analyzed on-site or transported to a laboratory. Proper preservation techniques may vary depending on the target analytes. Site-specific deviations from this SOP must be approved by the AECL Project Manager or the Client Project Manager prior to initiation of the sampling activity.

#### **2.0 SCOPE**

Surface water sampling is applicable to most study sites with surface drainages directly on the site or that are located hydraulically downgradient from such drainages.

#### **3.0 REQUIREMENTS**

Factors that may affect the ability to collect cross-channel samples include channel width, water depth, water velocity, channel bed stability and composition of the substrata. For successful completion of this procedure, a site must be safely accessible by sampling personnel access to the entire width of the stream channel must be possible. Ultra clean methods shall be followed for sampling activities.

##### **3.1 Health and Safety**

Stream substrata, or bed material, can be highly variable, even within a small stream section, and may pose a risk to those working in the stream. Large rocks with significant algal growth can be slick and those pose a fall risk. Rocks and sand can shift when weight is applied to them. Sharp rocks, sticks and artificial debris (broken bottles, metals, barbed wire) can puncture boots and skin. Before wading into a new area of the stream, examine the area visually, if possible, and use one foot to gently probe and stream bottom for suitable footing. If necessary, use a wading staff for stability.

**PPE:** Waders, nitrile or similar gloves.

Operational or safety issues associated with this procedure shall be reported to the on-site supervisor, AECL Project Manager, SH&E Coordinator, or their designees for resolution. Employees and contractors are required to stop work when they believe work conditions are unsafe.

#### **4.0 REFERENCES**

USGS. 1999. *National Field Manual for the Collection of Water-Quality Data, Chapter A4. Collection of Water Samples.*

USEPA. *Water: Monitoring and Assessment.* Chapter 5 Water Quality Conditions. (website)

USEPA. 1999. *Rapid Bioassessment Protocols for use in Wadeable Streams and Rivers.* EPA 841-B-99-002.

## TECHNICAL STANDARD OPERATING PROCEDURE No.

### Collection of Cross-Channel Surface Water Samples

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USEPA. 1996. *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*. EPA Method 1669. Office of Water, Engineering and Analysis Division, Washington, DC.

USGS. 1985. *Study and Interpretation of the Chemical Characteristics of Natural Water*. USGS Water Supply Paper 2254.

## 5.0 DEFINITIONS

**Environmental Sample** – Low concentration sample typically collected offsite and not requiring DOT hazardous waste labeling as a high hazard sample.

**Clean Hands** – All operations involving contact with the sample bottle and transfer of the sample from the sample collection device to the sample bottle are handled by the individual designated as “clean hands.”

**Dirty Hands** – All operations involving preparation of the sampler (except the sample container itself), operation of any machinery and all other activities that do not involve direct contact with the sample, shall be performed by the individual designated as “dirty hands.”

## 6.0 RESPONSIBILITIES

### Project Manager

The Project Manager (PM) is responsible for the selection of the appropriate methodology, technique and field procedure for conducting the sampling.

### Field Project Leader

The Field Project Leader (FPL) may be an AECI employee or contractor who is responsible for overseeing the sampling activities. The FPL is also responsible for making on-site decisions as to slight shifts in the cross-channel sampling location in order to ensure a safe working environment and that representative samples will be collected. The FPL provides oversight for all work performed and verification that the activity satisfies the requirements of this SOP and the Project Plan.

## 7.0 EQUIPMENT

1. Sampling bottles (certified clean and pre-treated with preservatives, if necessary)
2. Large (~2 L to 5 gallon) mixing bottles (e.g., a clean cubitainer)
3. Decontamination equipment and supplies
4. Nitrile gloves
5. Shoulder-length gloves
6. Peristaltic sump, clean tubing and 0.45 µm inline filters, or
7. 60 cc syringes and 0.45 µm syringe filters
8. Labels
9. Sharpies® or other indelible markers
10. 100-foot tape measure or rope with accurately-marked intervals
11. ≥ 3 foot rebar or wooden stakes
12. Orange plastic flagging
13. Hammer

## 8.0 PROCEDURE

### 8.1 General Procedures for Collection of Cross-Channel Water Samples

## TECHNICAL STANDARD OPERATING PROCEDURE No.

### Collection of Cross-Channel Surface Water Samples

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- Determine whether the multiple samples collected across the channel will be composited into a single sample, or analyzed independently. If the latter, then sufficient volume must be collected at each site for all analyses.
  - Acquire the necessary number and type of sample containers for all samples. A “sample” (composite or multiple individual samples) will consist of five (5) bottles, including two 250-mL acidified (to ≤ 2 pH with nitric acid) high density polyethylene (HDPE) bottles (one non-filtered for total metals and hardness analysis, and one filtered (0.45 µm) for dissolved metals analysis), one 250-mL HPDE bottle with NaOH (for cyanide analysis), one 250-mL HDPE bottle (unpreserved) for salinity, and one 500-mL HDPE bottle (unpreserved) for the remaining inorganic analyses.
  - Upon arrival at the site, one member of the sampling shall be designated as “dirty hands” and a second member shall be designated as “clean hands.”
  - The cross-channel samples shall follow the general USGS procedure of equal-width-increment (EWI) sampling. Each stream section to be sampled will be of approximately equal width.
  - If samples are to be collected at multiple transects, begin work at the furthest downstream location.
  - Select the sampling transect location. One person shall stand at the edge of one bank of the stream holding the tape or rope and a second person shall carry the end of the tape or rope across the stream. As much as possible, minimize disturbance of the stream bottom and limit the area of travel to a narrow corridor. Samples shall always be collected upstream of the disturbed area.
  - With the tape or rope as taut as possible, secure the tape/rope to stakes on each bank.
  - Determine the number of sampling compartments (sections). See Figure 1 of this SOP and follow this general guidance:
    - Small stream ( $\leq 25$  ft in width): 4-6 compartments
    - Intermediate stream ( $> 25 - 50$  ft in width): 6-12 compartments
    - Large stream ( $> 50$  ft in width):  $\geq 12$  compartments
  - Stream features should also be used in determining the number of compartments. It may be appropriate to place different features (pools, runs, ripples, eddies) into separate compartments. A seemingly homogenous reach (e.g., a consistent run) will probably require fewer compartments.
  - Using the hammer, drive a stake into the stream bed marking the center of the compartment. Tie an orange flag at the top of each stake to make them more visible.

#### **8.2 Collection of Independent Samples in each Compartment**

- One of the unpreserved sample bottles may be used to collect water from the stream at each staked location, or a separate container may be used. As 1500 mL are needed for all analyses, a 2 L collection bottle would be adequate for collecting the individual compartment samples (new bottle for each compartment).
- Don clean gloves. Nitrile gloves are acceptable, however, for deeper water wear clean, shoulder-length gloves.
- Approach the location from the downstream side. Once in position, wait approximately 30 seconds (or longer if needed) for any disturbed fine sediment to be carried downstream.

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### Collection of Cross-Channel Surface Water Samples

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- At the midpoint of the compartment, where the stake is located, rinse the bottle three times with stream water. Just upstream of the stake, place the sampling bottle into the water, gently lowering it through the water column. The mouth of the bottle should be facing generally upstream, but the bottle should be angled upward at ~20-45° to allow air to escape as the bottle fills. Do not touch the bottom of the stream, as that may disturb sediment. Raise the bottle slowly back up through the water column. The bottle should be full when it is lifted from the water.
  - Securely replace the bottle cap and hand the filled bottle to another staff member (or place it on a rock or other location where it will not be carried downstream). Each bottle should be appropriately marked with the correct compartment number.
  - Go to the next compartment, again approaching from the downstream side, and repeat the collection process.
  - Divide the sample into the appropriate preserved and unpreserved bottles (see Section 8.4 of this SOP).

### **8.3 Collection of a Composite Sample**

- Before collecting samples for analysis, determine in which compartment a sample bottle will fill the fastest when lowered and raised through the water column (e.g., 1 minute, 30 seconds, etc.). This will be the Transit time. Use this same Transit time at all compartments, even if a bottle is not completely filled when brought back to the surface.
- As 1500 mL are needed for all analyses, a 1 L collection bottle should be adequate for collecting the individual compartment samples, which will be mixed as a composite sample before being subdivided for analyses. Use a new bottle for each compartment.
- Don clean gloves. Nitrile gloves are acceptable, however, for deeper water wear clean, shoulder-length gloves.
- Approach the location from the downstream side. Once in position, wait approximately 30 seconds (or longer if needed) for any disturbed fine sediment to be carried downstream.
- At the midpoint of the compartment, where the stake is located, rinse the bottle three times with stream water. Just upstream of the stake, gently lower and raise the sampling bottle into the water within the pre-determined Transit time. The mouth of the bottle should be facing generally upstream, but the bottle should be angled upward at ~20-45° to allow air to escape as the bottle fills. Do not touch the bottom of the stream, as that may disturb sediment. The bottle may not be completely full when it is lifted from the water.
- Securely replace the bottle cap and hand the filled bottle to another staff member (or place it on a rock or other location where it will not be carried downstream). Each bottle should be appropriately marked with the correct compartment number.
- Go to the next compartment, again approaching from the downstream side, and repeat the collection process.

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### **Collection of Cross-Channel Surface Water Samples**

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- When all compartment samples have been collected, mix each by vigorously inverting them no less than three times, and immediately emptying them into the large mixing bottle. Make sure the mixing bottle is large enough to contain the water collected.
  - Cap the mixing bottle and homogenize the composite sample by vigorously and repeatedly swirling and inverting the bottle for no less than one minute.
  - Divide the sample into the appropriate preserved and unpreserved bottles (see Section 8.4 of this SOP). Some sample may remain in the mixing bottle.

#### **8.4 Dividing a Sample to Individual Analyte Bottles**

- Fill all containers, except the one for dissolved metals, with the raw water sample, either the individual compartment samples, or the composite.
- Do not overfill the bottles that already contain preservative.
- For the dissolved metals sample, filter 250 mL of the raw water sample using a 1) peristaltic pump equipped with new, disposable tubing and a new, 0.45 µm filter, or 2) new, 60 cc syringe and 0.45 µm filter syringes.
- If using a pump, tubing and filter, place the intake tube into the raw sample and the outlet tube into the 250 mL sample bottle with preservative. Activate the pump and filter enough water to fill the sample bottle, without overfilling.
- If using a syringe and syringe filters, draw approximately 60 cc of the raw water sample into the syringe before the filter is attached. Attach the filter and depress the plunger while holding the syringe filter outlet over the preserved sample bottle. It may be necessary to stop and replace the filter if the raw water contains a high level of solids.
- Make sure all sample bottles are securely capped and labeled.

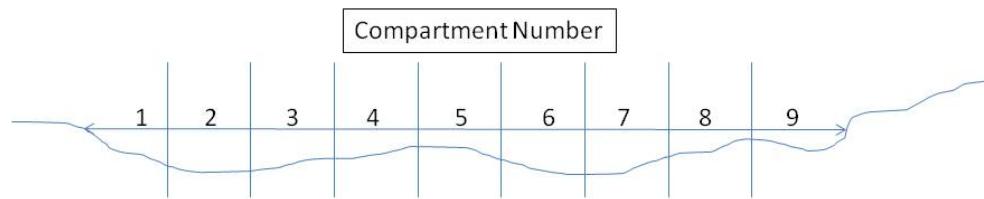
## **9.0 DOCUMENTATION/VERIFICATION**

A record of field activities, including the number and type of samples collected, shall be recorded on field data sheets or in a field log. The log shall be reviewed by the FPL to verify the accuracy of the data.

**TECHNICAL STANDARD OPERATING PROCEDURE No.**  
Collection of Cross-Channel Surface Water Samples

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**Figure 1. Example of the general placement of the cross-channel sampling compartments for the equal-width-increment (EWI) sampling procedure.**



**Appendix M**

**EPA Guidelines on Surface Flow Measurement**



## Water: Monitoring & Assessment

You are here: Water » Our Waters » Rivers & Streams » Monitoring & Assessment » 5.1 Stream Flow

# 5.1 Stream Flow

### **What is stream flow and why is it important?**

Stream flow, or discharge, is the volume of water that moves over a designated point over a fixed period of time. It is often expressed as cubic feet per second ( $\text{ft}^3/\text{sec}$ ).

The flow of a stream is directly related to the amount of water moving off the watershed into the stream channel. It is affected by weather, increasing during rainstorms and decreasing during dry periods. It also changes during different seasons of the year, decreasing during the summer months when evaporation rates are high and shoreline vegetation is actively growing and removing water from the ground. August and September are usually the months of lowest flow for most streams and rivers in most of the country.

Water withdrawals for irrigation purposes can seriously deplete water flow, as can industrial water withdrawals. Dams used for electric power generation, particularly facilities designed to produce power during periods of peak need, often block the flow of a stream and later release it in a surge.

Flow is a function of water volume and velocity. It is important because of its impact on water quality and on the living organisms and habitats in the stream. Large, swiftly flowing rivers can receive pollution discharges and be little affected, whereas small streams have less capacity to dilute and degrade wastes.

Stream velocity, which increases as the volume of the water in the stream increases, determines the kinds of organisms that can live in the stream (some need fast-flowing areas; others need quiet pools). It also affects the amount of silt and sediment carried by the stream. Sediment introduced to quiet, slow-flowing streams will settle quickly to the stream bottom. Fast moving streams will keep sediment suspended longer in the water column. Lastly, fast-moving streams generally have higher levels of dissolved oxygen than slow streams because they are better aerated.

This section describes one method for estimating flow in a specific area or reach of a stream. It is adapted from techniques used by several volunteer monitoring programs and uses a float (an object such as an orange, ping-pong ball, pine cone, etc.) to measure stream velocity. Calculating flow involves solving an equation that examines the relationship among several variables including stream cross-sectional area, stream length, and water velocity. One way to measure flow is to solve the following equation:

$$\text{Flow} = \text{ALC} / \text{T}$$

Where:

A=Average cross-sectional area of the stream (stream width multiplied by average water depth).

L=Length of the stream reach measured (usually 20 ft.)

C=A coefficient or correction factor (0.8 for rocky-bottom streams or 0.9 for muddy-bottom streams). This allows you to correct for the fact that water at the surface travels faster than near the stream bottom due to resistance from gravel, cobble, etc. Multiplying the surface velocity by a correction coefficient decreases the value and gives a better measure of the stream's overall velocity.

T=Time, in seconds, for the float to travel the length of L

### **How to Measure and Calculate Stream Flow**

#### **Task 1 Prepare before leaving for the sampling site**

Refer to [section 2.3 - Safety Considerations](#) for details on confirming sampling date and time, safety considerations, checking supplies, and checking weather and directions. In addition to the standard sampling equipment and apparel, when measuring and calculating flow, include the following equipment:

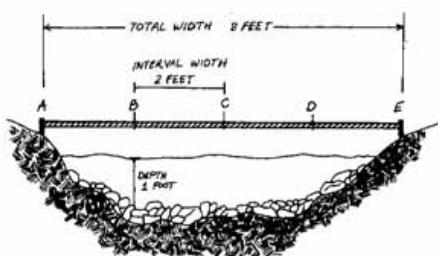
- Ball of heavy-duty string, four stakes, and a hammer to drive the stakes into the ground. The string will be stretched across the width of the stream perpendicular to shore at two locations. The stakes are to anchor the string on each bank to form a transect line.
- Tape measure (at least 20 feet)
- Waterproof yardstick or other implement to measure water depth
- Twist ties (to mark off intervals on the string of the transect line)
- An orange and a fishing net (to scoop the orange out of the stream)
- Stopwatch (or watch with a second hand)
- Calculator (optional)

#### **Task 2 Select a stretch of stream**

The stream stretch chosen for the measurement of discharge should be straight (no bends), at least 6 inches deep, and should not contain an area of slow water such as a pool. Unobstructed riffles or runs are ideal. The length that you select will be equal to  $L$  in solving the flow equation. Twenty feet is a standard length used by many programs. Measure your length and mark the upper and lower end by running a transect line across the stream perpendicular to the shore using the string and stakes (Fig. 5.4). The string should be taut and near the water surface. The upstream transect is Transect #1 and the downstream one is Transect #2.

#### **Task 3 Calculate the average cross-sectional area**

Cross-sectional area ( $A$  in the formula) is the product of stream width multiplied by average water depth. To calculate the average cross-sectional area for the study stream reach, volunteers should determine the cross-sectional area for each transect, add the results together, and then divide by 2 to determine the average cross-sectional area for the stream reach.

**To measure cross-sectional area:****Figure 5.5**

2. Determine the average depth along the transect by marking off equal intervals along the string with the twist ties. The intervals can be one-fourth, one-half, and three-fourths of the distance across the stream. Measure the water's depth at each interval point (Fig. 5.5). To calculate average depth for each transect, divide the total of the three depth measurements by 4. (You divide by 4 instead of 3 because you need to account for the 0 depths that occur at the shores.) In the example shown in Figure 5.6, the average depth of Transect #1 is 0.575 feet and the average depth of Transect #2 is 0.625 feet.
3. Determine the width of each transect by measuring the distance from shoreline to shoreline. Simply add together all the interval widths for each transect to determine its width. In the Figure 5.6 example, the width of Transect #1 is 8 feet and the width of Transect #2 is 10 feet.
4. Calculate the cross-sectional area of each transect by multiplying width times average depth. The example given in Figure 5.6 shows that the average cross-sectional area of Transect #1 is 4.60 square feet and the average cross-sectional area of Transect #2 is 6.25 square feet.

5. To determine the average cross-sectional area of the entire stream reach (A in the formula), add together the average cross-sectional area of each transect and then divide by 2. The average cross-sectional area for the stream reach in Figure 5.6 is 5.42 square feet.

**Figure 5.6****A diagram of a 20-foot transect****Task 4 Measure travel time**

Volunteers should time with a stopwatch how long it takes for an orange (or some other object) to float from the upstream to the downstream transect. An orange is a good object to use because it has enough buoyancy to float just below the water surface. It is at this position that maximum velocity typically occurs.

The volunteer who lets the orange go at the upstream transect should position it so it flows into the fastest current. The clock stops when the orange passes fully under the downstream transect line. Once under the transect line, the orange can be scooped out of the water with the fishing net. This "time of travel" measurement should be conducted at least three times and the results averaged--the more trials you do, the more accurate your results will be. The averaged results are equal to T in the formula. It is a good idea to float the orange at different distances from the bank to get various velocity estimates. You should discard any float trials if the object gets hung up in the stream (by cobbles, roots, debris, etc.)

**Task 5 Calculate flow**

Recall that flow can be calculated using the equation:

$$\text{Flow} = \text{ALC} / \text{T}$$

Continuing the example in Fig. 5.6, say the average time of travel for the orange between Transect #1 and #2 is 15 seconds and the stream had a rocky bottom. The calculation of flow would be:

*Where:*

A	=	5.42 ft <sup>2</sup>
L	=	20 ft
C	=	0.8 (coefficient for a rocky-bottom stream)
T	=	15 seconds

$$\begin{aligned} \text{Flow} &= 15 \text{ seconds} (5.42 \text{ ft}^2) (20 \text{ ft}) (0.8) / 15 \text{ sec.} \\ &= 86.72 \text{ ft}^3 / 15 \text{ sec.} \\ &= 5.78 \text{ ft}^3/\text{sec.} \end{aligned}$$

**Task 6 Record flow on the data form**

On the following page is a form volunteers can use to calculate flow of a stream.

**References**

Adopt-A-Stream Foundation. *Field Guide: Watershed Inventory and Stream Monitoring Methods*, by Tom Murdoch and Martha Cheo. 1996. Everett, WA.

Mitchell, M.K., and W. Stapp. *Field Manual for Water Quality Monitoring*. 5<sup>th</sup> Edition. Thompson Shore Printers.

Missouri Stream Teams. *Volunteer Water Quality Monitoring*. Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

[Data Form for Calculating Flow \(PDF, 82.8 KB\)](#)

You will need Adobe Acrobat Reader to view the Adobe PDF files on this page. See [EPA's PDF page](#) for more information about getting and using the free Acrobat Reader.

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